



Or how to Realize the Most Money with the Smallest Expenditure of Capital and Labor in the Care of Bees, Rationally Considered.

#### PUBLISHED QUARTERLY.

Vol. I.

MEDINA, O., JAN. 1, 1873.

No. 1.

#### INTRODUCTORY.

Thereas Novices :- We must confess to a feeling of not being quite as much at home here, just yet, as in the old American Bee Journal, but we trust we shall all, in time, feel all the liberty here that we have there enjoyed. Remember at all times that Improved Bee Culture is our end aim, and we trust no one will esitate to give any facts from experience, because they may tend to overthrow any particular person or "hobby."

If any of our especial plans don't work, or if any thing web advertise has had its value over-estimated, here in these pages is the place of all others to set the error right. Piense do. : be hasty or prematurely positive, and when one of our number acknowledges a fault and makes proper reparation, the matter should be overlooked and friendly feelings renewed on both sides, at once and

The advances now being made in Bee Culture, it seems to as, must necessarily bring about individual losses often; for instance, one of us may have made up a quantity of hives for sale, and new developments may point out plainly that they are not fully adapted to the present needs of Bee Culture, and when you are

to sell them without telling your customer the whole truth, and making the price correspond. The same may be said of Extractors. necessary to throw them away as old lumber or old metals, do not, we implore vou, hesitate an instant.

Our most successful business men of the present day, have discovered it to be a fact that it is more profitable to tell their enstomers the bad points of their wares as well as the good. There are ample opportunities in this world to acquire a competence honestly.

One of the most lamentable wrongs in Bee Culture is the custom ' of taking money for a "right to make and use" a hive, knowing that the buyer could "make and use" a hive so nearly like it as to answer every purpose, without using a six-GLE ONE OF THE PATENTED FEATURES. It will be our especial aim to fully inform the public of all such transactions coming under our observation.

Please give facts all you can without regard to their bearing on individuals, if they are of such a nature as to benefit the masses. Without further moralizing we will try and let our little Jornnan show for itself what it is; but, dear readers, we hope you have read this earesatisfied of this, please do not attempt || fully for we may refer to it hereafter.

#### STARTING AN APIARY.

OUR WAY.

SELECT a piece of ground near your dwelling nearly level, and, if possible, sloping gently to the east or south. It will pay to level it down like a brick yard, removing all rubbish of every description. Stretch a line running east and west on one side, 60 feet long, with knots tied every 3 feet, drive a stake six feet long and 21 inches square of oak or some durable wood at every other one of these knots; in fact the better way is to tie the knots of black and white tape alternately, fastening them with pins that they may not slip. First drive a stake at each white knot, then move each end of the line by a stick cut accurately 5. feet. A line should also be stretched on one of the sides at right-angles to the first so that it may always be shifted squarely forward. Put a row of stakes on the black knots, then on the white again, and you will thus secure them in the shape of the cells in a honey comb, viz: each stake is surrounded by six others equally distant. Plant a grape vine on the south side of each stake and a hive on the north side, and with your Bee House located in the center of this plantation you have or may have all the requisites and every facility for moving among the hives in all directions.

This plot will accomodate about 100 hives, which number we consider as many as it will pay to keep for honey in one locality. If you are ambitious for more, open other similar "ranches" three miles distant and three miles from each other, (this being the center,) on the plan we have arranged the stakes in the But as the central beginning. apiary of "our system" is not yet finished we will attend to that first.

The very first work to be done is to get those grape vines growing, and we know of no variety equal to the Concord for the purpose. strong, well rooted vines should be purchased for about \$10.00 per 100. Buy them of some one you know, if possible; never patronize "traveling meu." Pinch off all shoots but one and train that straight up until it is in position to best shade your hive in #truck or ear used to roll your bar-

the hot weather, and tie it securely with strings. Cut down this shoot at the end of the first year and the second year train two straight canes

· In the spring of the third season pull up your stake and drive it 18 inches directly east of its first position, and one just like it the same distance west. Cut them off on a line four feet from the ground and connect the two with strips of pine 1x3 inches, one at the top and another 3 feet lower. Tie your two branches to the lower bar spreading them each way and cut them off beyond the stakes. Stretch wires (galvanized iron is best) from upper to lower bar every 10 inches and your trellis is done. All the pruning and future training these vines will need is to tie the shoots to the wires every summer, and cut them back to the lower bar every winter, pinching off all shoots that are not needed and pinching them all off when they get much above the top bar. We know of no more healthful and prettier work for women and children than training these vines. As they are trained solely for the shade they afford the bives, we have not yet determined what course the Apiarian should pursue should they become loaded with fruit, as ours have been for several seasons, but have an impression that the women and children still might aid us.

Trees have been suggested in place of vines; and basswood would grow rapidly, but we could not have them so near together and they would shade the hives morning and evening when they should have all the sun possible. We know of nothing that can be kept just where we want them so well as grape vines, and as the lanes rup east and west the sun gives us his rays when wanted and at no other time.

To economize labor we should have the house in the center and the hives and vines thus removed may, be placed on the sides so as to make our ranche more in the form of a circle. The north and west sides should be protected from high winds by a close fence or wall 8 feet high.

A track should be laid to the nearest point of access with a wagon, from the bee house door, and a low rels of honey on, bring in hives, barrels, etc., and every facility afforded for keeping the whole place

neat and tidy at all seasons.

Our friend Mr. E. B. Blakeslee, of this place, uses the following modification of this plan. The bee house is placed at the lowest side of the Apiary and a track or tracks with proper switches made to run between each two rows of hives. A barrel is fixed low down in the ear, and Extractor and implements placed over it. The whole is covered with a light, square tent, made of canvass and wire cloth for an assistant to work seeme from robbers. your car to the top of the slope, hand the full frames from the hive through a slit in the eanvass to your assistant until the hivo is finished, then roll your car to the next two hives, and so on until you get to the house, when your barrel should be full and ready to roll off for another. This plan really works well and ain't patented. If it suits you, thank Mr. Blakeslee. Next number we will give our plan more fully, and suggestions for the construction of a Bee House.

#### PROBLEMS

FOR THE GENIUS OF OUR YANKEE BEE KEEPERS.

ST. Some plan by which coffee sugar can be made into gar can be made into solid eandy, as cheaply as we can make it into syrup; so that we can have it in cakes or bars to be laid on top of the frames under the quilt. The most careless bee keeper could then supply destitute colonies with a more wholesome food than honey, and see when they were out by simply raising the quilt. Perhaps our Southern friends could make us somo such sugar. If dampened up with water and dried, the "little chaps lug it off" out of the hive when it erumbles down, one grain at a time.

2nd. Is brown sugar any cheaper than No. 1. A. coffee sugar, i. c. in a dollar's worth of each, could a chemist find more pure sugar in the cheaper article? If so, about how nuch? Can our Southern friends help ns?

3d. By dispensing with the shaft

frame larger, we can reverse combs inside of frame. Can they not be reversed without making frame larger? If we use folded tin strips instead of wire cloth, they need not come nearer the edge of comb than within one inch of each of its sides. Think of it.

4th. In tall hives in spring the brood cluster has generally to be enlarged downward; in long hives with small frames they are obliged to go over to other combs; while in long hives with long shallow frames they are only obliged to move along horizontally on the same comb, and the latter has uniformly been most successful with us. We should like the opinion of all bee keepers who have no "rights for sale," on the above points. We shall publish the result in a table.

No form of hive which does not provide for, or admit of the ready use of the honey-emptying machine, ean ever again find favor with progressive bee keepers.— Wagner.

#### STRAWS.

[For Novice's Gleanings in Bee Culture.] Nowhere, Dec. 3, 1872.

AY I bring a straw for your bundle of gleanings, Mr. Novice? Throw it into your paper basket if you choose. I am among those who do not like to risk having my upper lip made into a miniature portico, or my ability to "observe the beauties of nature" suspended.

W. F. Clark says in "Annals," "Happy is the hee keeper, who can get possession of an old fashioned, black lace veil." I think I understand him. With a yeil made as follows, no gloves, and a pair of fine tweezers to draw out the little beard that sometimes breaks off in the flesh, as you take away the sting, you may work with very little fear. Three-fourths of a yard of crown lining, black or white as you pre-fer, three-eighths of a yard of hlack bobinet lace, (will make the face for two); or tulle is nice, only not as durable, and one-half yard rubber cord. Cut off one width of erown linius 19 inches for length of veil, cut lace lengthwise in two pieces, sew a piece of crown lining at both top and bottom, hem and run rubher cord in top, slip cord over erown of the hat, and tuck the veit under the clothing at the neek, or wear loose. Materials can be found at most milliner's shops or dry goods stores, at a

N. B.-If you have any very prominent in the extractor and making the features, don't draw the veil too closely. 0.

## NOVICE'S Glennings in Hee Gulture.

A. I. ROOT & CO.,

EDITORS AND PROPRIETORS.

Published Quarterly, at Medina, Ohio.

Terms: 25c. for the 4 Numbers.

Any one sending us 5 Subscribers can retain 25c.
for their trouble.

[PRINTED AT MEDINA COUNTY GAZETTE OFFICE.]

Medina, January 1, 1873.

As we are only a "wee" Journal as yet, many things are crowded out that we should have been glad to have used.

Messrs. Shaw & Daniels, whose advertisement appears on last page, are men to whom we should not hesitate to send an order if we wanted Bees.

Our readers will oblige us by calling the attention of their Bee keeping friends to this our first number "Gleanings," if they think it worthy of it, but don't otherwise.

WE have received queens from both Mr. Argo, of Lowell, Ky., and Mr. Carey, Colerain, Mass., too late to judge of them, as with us a queen is estimated by her work, and "handsome is as handsome does." We hope the gentlemen will accept our thanks all the same.

We have no "Associate Editors," and are only a plain, simple "Novice," yet we are going to try hard to earn the many "25 cents-es" which have been sent in so freely; and the many kind letters of regard and approval of our past efforts in the American Bee Journal we have no room to notice further than that they are worth more to us than "coined gold." Our heartfelt thanks to you, one and all.

WE shall, if a sufficient number desire, describe our machinery for making hives, windmill, buzz saw, etc., etc. Several have made inquiries already, and those earing for the matter will please drop us a line. We recommend every Bee keeper to make his own hives if possible.

Thanks.—"0" from "nowhere," you have given us something far superior to "covered wagons" with sleeves, strings, and wire cloth, so often recommended and which are in hot weather a greater punishment than stings. The veil we used when handling closed top frames was brief enough to be carried in the vest pocket and yet protected the face perfectly. We think very many could make, burning rotten wood, a sufficient "argument in all emergencies" if "they only thought so."

A correspondent who rears queens for sale writes us that some of his neighbors are stocking up with black bees, which they will neither sell nor pay half price for having Italianized, thinking he will do it for nothing rather than suffer so much damage from hosts of common drones. As these persons are of course ignorant and unskillful, he suggests the probability that their bees may all die during the coming winter. We are inclined to think kindness, forbearance and a friendly disposition to try and make better neighbors of these people, will, as with all other neighborhood difficulties, be found the most powerful wcapons in the end.

By "fixed" frames we understand such as are not movable laterally, but have a permanent position assigned to them, which the bees commonly make more fixed still by means of propolis. To adopt and use such is to go half way back to the old box system. On that principle railroad men should abandon steam and run their locomotives by horse power!—

J. M. Price, in American Bee Journal.

#### HEADS OF GRAIN FROM DIF-FERENT FIELDS.

QUESTIONS AND ANSWERS.

END me all the information you can on bees, as they have been my study for 30 years. I have fed two bbls. A crushed and one bbl. coffee sugar; I wish to know best preparation, and which sugar is best, and the sort of bee house you recommend. I find that strong colonies will do well anywhere and weak ones do best in the house. I used one gill of vinegar to 25 lbs. sugar, and 2½ gallons water, boil and skim. Will that eardy if not used up before spring?
J. HARRIS, Montville, W. Va.

Answers .- We have used the recipe as given in our circular, for the past 6 years, more or less, with uniform success; and a friend near us has this fall fed a bbl. of coffee sugar by simply pouring boiling water on it, and nothing more. The bees boiling have sealed up the greater part of it, and all is well so far. Will report further in spring. We have no doubt your recipe will be all right, if fed early enough, but why so much water? Full directions will be given in our next, for building for winter, to be used as honey houses in summer. think there can be no danger of candying, but your syrup may sour if fed too late to he sealed up. (See problems.)

In answer to Mr. Eli Coble, Cornersville, Tenn., we reply that R. R. Murphey's extractor comes nearer to what is wanted than any we know of. Have them made to take the frames the largest way up and down, and have the ean as small as can be and revolve the combs not more than fo inches from each other, and have him leave off all the wood work, so that it can be fixed over the bung of a barref. (See problems.)

G. E. Corbex, St. Johns, Mich., asks: "Is not 91 inch frame too shallow to economize heat to the best advantage in wintering, and for spring brood rearing?" Our experience is most strongly in favor of shallow frames for the very reason you mentioned. See American Bee Journal, page 104, Vol. VI, and page 274, June, 72, and problems.

"Do you use any honey board?"—Never except the cloth quilt. "Are not frames 18x6 inches or thereabouts, of on awkward shape to use in extractors?"—Quite the contrary, see a former question. "Do you place the hoxes at the side or on top of frames?" For box honey make the dollar hive we have recommended in our circular, of double the width and put on a second story. Now put the bees on ten combs placed in the center below, and put your boxes on each side and above a la Quinby's hive. If you can raise bees enough, all the boxes will be filled probably, but you would eertainly get more honey to let the bees fill frames if room be given them gradually as they can use it, and then when you get it

nice combs in all 40 frames, it seems such a waste to destroy them that we should advise taking ont the honey with the extract-or, and returning them to be filled again; which will be done in one-fourth the time it would take to build new ones. Such a hive should be made for about one-half more expense than \$1.00 hives, and affords every facility for working frames spread out horizontally, or for getting enormous yields of box honey with powerful colonies, or those made so by taking brood from other stocks.

"WILL not extracted honey soon become unsalable, or at least at a paying price? It is certainly much thinner, watery, more liable to ferment in quantities, etc., etc., and I notice that while it is quoted at 13e, it is claimed that box honey sells as high as 30, 40, and sometimes 50e.

Do not extract the honey until the bees begin scaling it, and it will be precisely like that in the comb. Whenever you can distinguish any difference in taste, it indicates that the honey has not been fully ripened in the hive. Small quantities that have been extracted too soon, may be ripened by placing in shallow pans in an oven. No Apiarian should make the blunder more than once. Extracted honey, too, retails in some places for 30 or 40c. (See honey page).

"An I to understand that any swarm of bees will take up and deposit 25 lbs. of syrup in ten hours?" Many report that they do not, but ours do even better when we have a full colony of Italians, weather warm, and syrup warm, and feeder on the frames directly over the eluster.

"WHEN you have a colony large enough to need two or three stories in the summer, do you force them all into one to winter?" Sometimes, but they have required more food, and were no better in spring than those with fewer bees, and now we take brood from them after the working season, for others that may need it, or to make new colonies.

HENRY PALMER, of Hart, Mieligan, writes: "That swarm that had given us 400 lbs. when I wrote you, have since given us 100 lbs. fall honey, making a good 500 in all. Our surplus will not come much, if any, short of 3000 from 11 swarms, no increase of swarms." As Mr. Palmer has given us one of the best reports ever made in bee culture, will he be so kind as to describe his hive and mode of working. He adds fur-

"How do you keep the bees from gluing the upper and lower stories together, also, lower story and bottom so that you cannot move the hive forward and back to enlarge and contract entranco. My bees glue them so it is almost impossible to separate them, and how do you lift off the upper story without strips and cleats around the hive?

Mr. Palmer, we declare, we will put you in the problem department. Geo. Howe, M. D., away down in Louisiana, wrote us a pleasant letter last May, and in it remarked that a cloth dipped in warm, clean tallow and passed over those parts of the hive that he wished kept free from propolis, would, so far as his experience went, answer the purpose completely. We are almost ashamed to say we have not given it a trial, but in this dileanma make the suggestion. We would contrive some way to avoid having projecting strips on the hive if possible. Some machine could be made to cut a place for the fingers in the end boards of the hive, without cutting through. Thanks Mr. Palauer for just criticisms.

Mr. J. F. Row, Petersburg, Mich., wishes to know if our "top bars do not sag when the frames are full of honey." None to speak of, even when supporting heavy glass vases filled with honey besides. The thin comb guide, when glued in place by the bees, gives great strength with little weight.

PROF. A. J. COOK, of Agricultural Colledge, Mich., reports \$80.00 profits from a single hive this season. "Never say die," (as Barnaby's Raven' had it,) friend Cook, if the Bee Cholera did use your bees shabbily.

## PERIODICALS OF OUR COUNTRY DEVOTED TO BEE CULTURE.

E think most of our readers will agree that the Am. Bee Journal, published ed at Washington, richly deserves to stand at the head of the list. It is now in its eighth Volume, and having steadily kept the good of the people in view, it could hardly be other than of the greatest value to the Apiarian. We would most strongly urge beginners, to get the complete back numbers and have them bound for reference. There is scarcely a disputed point in the whole science, that has not been considered at length, and pros and cons given from practical experience of the leading bee keepers of the world. Terms \$2,00 per year.

The Bee Keeper's Journal made its appearance in 1869, and has given us much that is valuable. It has a neat and attraetive appearance, and makes a pretty family paper, were it not necessarily eramped and made in many respects unreliable, from the fact of its being owned and published in the interest of a patent hive. As a free discussion of different forms and shapes of hives might not always favor the one that must not be criticised, every thing relating to hives is ommitted or changed so as to reter only to the hive in question. As the paper has been largely advertised and has a great circulation, it is to be carnestly hoped that this objectionable feature may soon be removed. Issued monthly, at No. 14, Murray St., N. Y. Terms, \$1.50 per year.

The Illustrated Bee Journal, afterwards changed to the National, published monthly sometimes, and sometimes oftener, we believe was never considered of much

value. The proprietor owned two patent hives, and it finally fell into the hands of the editor of the Bee Keeper's Journal, before mentioned, who may have owned it all the time, we don't know. The Journal at one time made each subscriber offers of queens for premiums, that have never been sent, and, although possessing some valuable features and some articles of merit, we cannot conscientiously recommend it. Published at Indiaaapolis. Terms, \$2.00 per year.

Moon's Journal, started recently, we would designate the North American Bee Journal, were it not for the fact that we so much dislike copying the name of an old established Journal so nearly. Are there not names enough in the world to furnish a greater variety and prevent confusion.

We have many times asked a visitor if he or she took the American Bee Journal? "Oh, yes, certainly," and then after a while finding they seemed to know nothing of the existence of more than one path in bee culture; we asked again, where is your Journal printed? "In New York, of course." And they had subscribed for the American Bee Journal, not knowing that there was another on the face of the earth. Pretty soon we shall have to designate them as the "Indianapolis," "New York," and "Washington" Journals. Please, Mr. Moon, call it something else. Candor compels us to say that the greatest fault we can find with this Journal is, that it seems to lack both substance and system. Indianapolis. Terms, \$2.00 per year.

We feel that we should here mention the American Bee Gazette, started almost simultaneously with the American Bee Journal, and afterwards united with it. A little paper started and carried forward on the right principles; and we cannot help, even now, thanking Mr. E. VanSlyke, for the first ideas given us then of the melextractor.

Annals of Bee Culture has been issued for the past few years, and contains much that is valuable, but candor compels us to say again, at the risk too, of having it said that we are incapable of seeing anything of value any where, except in the Old American Bee Journal, that the great progess made in apiculture each year, has not been presented in such shape as to be of most value to the masses.

"Last and least," "Novice's Gleanings" has the andacitity to peep into existence, and opens up by pitching into everybody right and left. Beware! beware! Novice. "Tis easy enough to find fault with others, but how do you know you can do even half as well as the least of them? Well, perhaps we shall not, but we are now in the crucible, and if the fiery ordeal leaves nothing remaining of us of any value, we will try and bow our head in submission and stop when we have fullfilled our promise of giving "four numbers," the very best that "ever we ean."

#### BOOKS OF AMERICA DEVOTED TO BEE CULTURE.

VERY bee keeper should read Langstroth and Quinby. No matter who, or where, or what your proficiency, read them for it will afford you a rare pleasure that you cannot afford to lose.

For something for ready reference, condensed and alphabetically arranged, we know of nothing better than Mr. King's Text Book. served us well and we almost flearned it by heart, (and we must add the American hive along with it, which we could have far better dispensed with, and hope Mr. King will too, when he ceases to be a patent right man,) and have given it to many beginners to save answering their innumerable questions. It is true that no mention is as yet made of the extractor in any of its frequent revisions; nor have we any work, so far as we know, that even does it any kind of justice. Perhaps our many periodicals are fully competent for this work. Price of Text Book 40c, and it is well worth the money after tearing out all about the "American hive," "Instructions to agents," etc.

Bee Keeper's Guide, by E. Kretchmer, Coburg, Iowa. Price 50 ets., has just been sent us for an opinion. As our opinion has been asked, we can afford to be quite candid. whole appearance of the book struck us as something strangely familiar, and on reading different parts of it, we were still more puzzled until we placed King's Text Book by its side, and found that the same ideas followed in almost the same succession even to whole pages and chapters; and cxtracts were in the same words: even "American Hives," too, (under a different name.) "In structions to agents, etc." Has Mr. Kretchmer stolen this from King, or has King sold him the right to,-to copy him, imperfections and all? As the book is larger than King's there must be something new, and we find the Extractor mentioned favorably, but it is so unimportant an implement that we presume more than one page devoted to it would be a waste of time.

Can't some one who makes a busi- | whole .- Gallup.

ness of selling only Bees and Honey write a Text Book, with no other end in view than to teach us to pro-

duce honey cheaply.

"Bees, Their Management and Culture," by Mrs. E. S. Tupper, we can heartily recommend. It advocates movable comb hives, only in the abstract and not any particular one. The work is too brief to go into details, but many valuable facts are given. As Mrs. Tupper devotes a page or two to box honey, and not quite five lines to the Extractor, we shall have to think that she is unacquainted with developments made in bee culture in that direction, or hesitates to recommend it to beginners. The assertion on page 12 that "The most valuable invention since movable combs, is that of the new swarming attachment," of Mrs. Farnham's, we think very doubtful, for very many large Apiaries are now managed with the aid of the Extractor, so that swarming is al most, if not quite, done away with. and such an arrangement would be worse than useless for that purpose. As no mention is made of the malady that has carried off large Apiaries during the past winter, we must conclude she has no advice to offer an the subject, or that "ventilation," "plenty of food," and "numbers" turnish the remedy. We leave the question to be answered by those who have suffered.

Some of the circulars that we receive from enterprising Apiarians, are almost a Text Book in themselves. Quinby's circular and price list we always look for with pleas-

ure, as we do many others.

Queen-Rearing is really getting to be one of the fine arts, and we know of no more honorable occupation for man or woman. The same can be said of the manufacture and sale of hives and all implements of value in apiculture, where the curse of patent right speculation and false representation is not connected therewith.

RECOLLECT that you must keep the animal heat concentrated in a compass small enough to suit the quantity of bees, and you are all right. If you harry too much you spoil the whole.—Gallup.

#### HONEY COLUMN

WHE sole end and aim of bee keeping is honey, or rather it should be if not directly, indirectly. We may sell bees, queens, or hives, but only that their possessor may secure honey thereby. It has been said that only 10c. has been offered for honey in the West, and yet in a brisk little railroad town in Ohio, they retail extracted honey at 45 ets. and comb honey 50 ets. Now, can't those bee keepers West have a little more, and the good people of Xenia be supplied at a little less figure? We are going to try and get the two opposite factions acquainted and help them both, if we can. We have done but little yet, but here is the result.

Messrs. Barber & Stout, No. 16, Main St., Cincinnati, will pay 131 cts. cash, for 20,000 lbs., delivered in their city in securely waxed barrels. Barrels to be returned in good order when emptied.

Mr. W. H. Shane, Chatham Center, Medina Co., O., has 235 lbs. candied basswood honey, that he will sell for 20c.

Mr. J. Pratt, Mallet Creek, Medina Co., O., has 1000 lbs nice extracted honey which he offers at 18c.

If any one has honey they will sell less than the latter price, we will publish it in our next gratis; and if any one will pay more than Messrs. Barber & Stont, we will also publish their offer. Don't write to us, but write to the parties mentioned; and we would suggest that samples of honey may be sent cheaply by mail, in small tin boxes, such as watch movements come in; to be had of any jeweler. Make the joint tight with melted wax. Good honey, we believe, is always candied at this season of the year, or should be, at least, and it is easily shipped in this state, and will keep good any number of years, so that the Grocers need be in no fear of losses in that direction. If some one dealer in every town would advertise good honey for sale the year round, could all of our bee keepers supply the demand, even if retailed at 25c?

#### BEE STINGS.

TE really must decline to publish any! of the thousand and one remedies for bee stings sent us until we have more conclusive evidence that any thing is of any avail. In the majority of instances the pain ceases in a few minutes whether any applieation be made or not, and when a remedy be applied it generally receives the credit if relief follows, if not, something used in a former ease receives the preference. We say, extract the sting in such a manner (with the point of a pen knife for instance,) as to avoid pressing the contents of the poison bag into the wound, and then let it alone Any irritation, such as rubbing the affected part, produces pain and swelling, so we repeat, "let it alone," and get your mind on something else as speedily as possible, and all will be well.

#### ADVERTISEMENTS.

Advertisements will be received at 10 cents per line each insertion, eash in advance; and we require that every Advertisor satisfies us of his responsibility and intention to do all that he agrees, and that his goods are really worth the price asked for them.

TALIAN QUEEN BEES FOR 1873-Will TALLAN QUEEN BREEN TO A STATE OF THE BEST OF THE BEST

Colerain, Franklin Co., Mass

P. M. ARGO, IMPORTER and BREED.

The er of Pure Italian Queen Bees, I would say to my friends and customers, that if I am fortunate in getting my hees safely through the present winter—as I generally have been, hore-tofore—I will have for sale, early in the spring, about twenty-five colonies with choice queens. I also expect to have a few aucon breeders to spure in April. Having the attachage of a nore someon inection. I ern furnish queen callier in the season than Northern breeders all communications promptly answered. Please all contains a three cent stamp for letter. Circulars sent free. Address, Lowell, Garrard Co. Ky.

PRICE LIST OF PURE TTALIAN Queeus and Bees from Shaw & Daniel's Apiaries, for 1873:
For last year's Queens, sent as early as the weather is suitable, \$5 each.
Tested Queens, during the season, \$4 each. Intested Queens in June and July, \$3 each. After the 1st of August, \$1.50. All Queens sent by mail warranted pure and fertile. Safe arrival guaranteed.

by mail warranted pure and fertile. Safe arrival guaranteed.

Nucleus' Hives containing pure Queen, with 6 frames each, 8½ by 9½, \$\$ cach. Can be built up into strong swarms or used for wintering surplus Queens.

Full colonies in one story Langstroth Hives, ten frames each, \$13. Wide hives with movable partition board from '4 to 17 frames each, \$15. Two story hives containing 21 frames, \$15 cach. American Hives, containing 9 frames with space botwoen top bars, \$15 cach.

Each colony will contain a young Queen and 9 frames of comb, with extra frames. Sent by express and safe arrival guaranteed. Address J. SHAW & SON, Chatham Centor, or J. E. DANIELS, Lodi, Medina, Co., 0.



Or how to Realize the Most Money with the Smallest Expenditure of Capital and Labor in the Care of Bees, Rationally Considered.

#### PUBLISHED MONTHLY.

Vol. I.

MEDINA, O., FEB. 1, 1873.

No. 2.

#### STARTING AN APIARY.

No. 2

THE hope our readers will recognize the fact that we can here only give general directions for the mass of those who wish to commence bee-keeping
From a host of letters on the subject we

pic up the following:—
"What must a poor fellow do who has not the land lying to the east or south convenient, neither the means to improve it in the way that you recommend, but would still like to keep a few stands of bees.

"One of my neighbors on reading your description of your grounds, exclaimed, 'Oh l yes, Novice has plenty of moncy and I have none, and my wife in the doctor's hands.'" Bless your hearts, fellow novices, we have

not advised anything expensive.

Take such land as you have got, or if none, we must advise every bee-keeper to get a few rods of land some way, "all his

Commence small and don't run in debt. Those who commence with nothing but their "bare hands" are oftenest the most useful and most successful people we have in the

With an axe and spade and round poles from the woods even, you can do all that we have advised Start on the plan we gave if it be only for a half dozen hives, and they will increase as you gain practice and expericnce.

Twelve years ago Novice had not the value of \$10 in all his "carthly possessions," and had not money been absolutely necessary for the working out of some of his expensions of the working out of some of his expensions. periments he might not now have been able to publish even a 25c, paper. Mrs. "Novice" and the children will tell you that "plenty of money" was never yet known in their household, but that twelve or fourteen hours of work deily always. of work daily, always has been and we trust always will be; and most of it is a pleasure too, especially that part pertaining to the grape vines, and they can be raised in any quantity from cuttings pruned from old vines at no expense but a very little labor.

Tell your neighbor to take his wife out doors with him, to help plan and arrange his apiary, keep her on fresh beef steak

"roasted on the coals," and perhaps no doetor will be needed.

If more of our American women were beekeepers they would know better what health and happiness is possible for them in this world of ours.

Now then, fellow bee-keepers all over this broad land, whether you have one hive or hundreds, get your grape vines growing and then see about hives for the bees that are coming bye and byc, and please do have those hives all alike, so that any frame will go nicely into any one of them, or "any part any where."

This is easy to say but so hard to accom-

plish that we fear you will many of you never do it unless you commence work very

carefully.

Some kind of a buzz saw scems a positive nccessity, and here again we say, do not get in debt for something you cannot afford

If you wish to make but few hives a circular saw, costing not much over a dollar, made to "rip" and "eut off" both, will do very well. The teeth should be fine and size not over seven or eight inches: smoother work can be secured by having two such saws, one to "cut off" and one to "rip."

A home-made arbor to run them on can be made without much expense, but a selfcentering and self-oiling arbor can be purchased for \$12 or \$14, and arc much more convenient Ours came from Wilkinson & Co., No. 2 Washington street, Boston, but we think they might be purchased of any saw-maker near you.

Our table is home-made; top hinged at one end and the other is raised and lowered by a sett serew, so that any kind of rabbeting is quickly and accurately done. Top of table is  $3x4\frac{1}{2}$  feet, of ash, screwed together very

As we use the same table for "cutting off." the bar of wood that lies parallel to the saw, to gauge the width, was in the way and was troublesome to remove. This we now have attached to a strip hinged to the back edge of the table so that the whole turns over back and below the surface of the table entirely out of the way when we desire to "cut off" boards.

If you will 'all now 'listen hard" we will try and describe a little arrangement that gives us most pleasure of anything about the masheen.'

Boards must be cut square in two and to do this they must have one edge cut nearer straight than we buy them. We quarreled a long while with our mechanics about it and now do it our way with great satisfaction.

About six inches in front of the saw cut out a strip of the table lengthwise, three or four inches wide, and fit a piece of hard wood to slide easily but closely in the groove, its top being level with the top of the table. Serew a similar piece across this at right angles, resting on the bench and reaching up to the saw, and of about two feet in length. piece must be so nicely adjusted that a board held hard against it will be cut exactly square off.

To cut pieces of frames on a square mitre we must have another strip fastened at an angle of forty-five degrees to the first piece, and to keep both of these firm, their ends furthest from the saw can be screwed together, making a complete figure 4, the upright part of the figure being the one that slides in the top of the table, the horizontal bar cuts stuff square off, and the slanting one is to cut pieces beveling or so their ends go

together like a picture frame.
"Stops" are made on both pieces at the proper places to cut off work. For instance, the square bar has a stop to cut the length of side of the hive, end of the hive, and cover of the hive. Slanting bar has stops for top for bottom of frame and end of frame. Now it is a very nice point to set these "stops" just right, and when they are set we don't want to move them, but they would interfere with each other if stationary so we have them made of a strip of brass with one end turned square so that it will spring out and make a secure stop for the end of the board, yet may be pressed in a mortise out of the way when we wish to use the stops beyond it. So you see we can make a hive complete as fast as we can handle the stuff, all exactly right, and "nary a square or rule" do we have to bother with.

But, observe, cut off your pine boards (dressed on both sides accurately to seveneighths) first into lengths for one end and one side and a little more. Now straighten one edge by setting it down firmly on some small points projecting out of the sliding strip so that your

saw will just trim one edge.

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When this trimmed edge is placed against the square strip you can cut the piece in two so that you have one square end on each. Place the square end against the proper stop, and your piece has three sides true. We bring it to the proper width and leave the edge of the proper bevel to make the joint (between the cover and hive or upper and lower story) shed rain, at one operation by elevating the finished edge on a wedge shaped platform supported on those same points in the sliding strip as it is moved against the saw. The picces that come off make the frame that holds the cover from

So you see a piece of board thirteen inches wide, and about six and a quarter feet long

makes our dollar hive complete except cover, which is 20½x16.

The rabbeting in the end pieces should be done just before the strips for cover are sawed off.

In answer to many inquiries we would state that after careful experiments last scason we preferred the space between end of frames to be not less than three-eigths and not more than one-half inch. A distance of one-fourth inch can be used but much greater care is required in handling combs to prevent squeezing our young friends that "want to know" what we are trying to do with them.

To those who claim that bits of comb will be built in one-half inch space we reply that it's your business to see that they have

better employment.

Keep the honey out of their way and give them one frame to build comb in, during the comb-building season. You will never get too many nice combs for they will sell even now, especially if we adopt some fixed dimensions for our frames so they will fit our

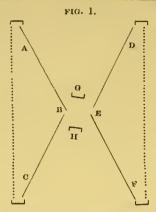
neigbbors' hives as well.

Again, keep the honey out of their way as faithfully as you milk your cows daily, and we had far rather remove all the honey from a hive than milk a cow. Cows require milking about six times as often and don't give honcy either, and—"bless our stars," if we run on this way it will take a weekly paper instead of a monthly even, to enable us to tell you how simple a matter it is to save the floods of honey that bountiful nature pours down at our very doors, and everybody seems to be afraid to even give the "little chaps" a place to put it conveniently, "cause they'll sting." Now we are afraid our friends will have to run their buzz saws by foot power until next month; it is cheaper and is healthy exercise and gives one an elastic feeling about the walking apparatus afterward, and so we'll tell about the windmill next month,

HOW TO MAKE A HONEY EXTRACTOR AT-AN EXPENSE, OF, NOT EXCEEDING \$5.00, AND PRATICALLY SUPERIOR TO ANY NOW OFFERED FOR SALE SO FAR AS WE KNOW.

S our machine, kind friends, is to be made all of metal, and, like the dollar hive, is to be useful only and not ornamental, it is important that the roofing tin plate, of which it is to be made, be purchased at a small margin above what it eosts by the box. About ten sheets 14x20 will be required, and your tinsmith should not charge you more than 15c. each, as they cost at present only \$14.50 per box of 112 sheets.

The only difficulty of the work is the revolving frame inside the can, and to make it clear we employ the following illustration, which is supposed to represent the frame as viewed from above before the arm supporting the gearing is placed on one side of the top of the can.



A,B,C and D,E, F are each sheets of tin eut off to 16½ inches allowing 6 inches from center to first corner, and 2 inches each for spaces at A, C, F and D, and ¼ inch turned at right angles to hold the wire cloth or metal bars represented by the dotted lines. G and H are strips 14 inches long (some as midthe) elegates 14 inches long (same as width of sheets A, B, C and D. E. F,) and ½ inch broad, bent lengthwise so as to form grooved pieces that, when soldered in place, hold the two large sheets in place and leave room to drive a 1/4 inch steel rod in center for shaft, or simply a pivot pushed in a couple of inches at each end and sol-dered will answer. Two picces of Stubbs' steel rod, ¼ inch diameter, one 6 and one 3 inches long, make heautiful

Now then, metal bars for the comb to rest against we think cheaper and better than wire cloth and this is the way we

make them:

make them:

Cut 18 strips ½ inch broad lengthwise from one of the sheets, and, with a tinsmith's folder, fold them longthwise, leaving the two edges about ½ inch apart. With a pair of plyers hend the following figure from these strips, soldering on a piece as you bend them up, and have all the spaces exactly one inch, and rods inst ten inches long. just ten inches long.

	H	ra L	
	1 /	1	
	17		
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C.1	<u> </u>		
FIG. 2	T		
		· · · · · · · · · · · · · · · · · · ·	

When you have completed two of these, having sixteen spaces, they are to be put across from A to C and from D to F, and soldered securely, leaving, of course, one bar an inch ahove the sheets of tin and one the same distance below, as these sheets were but 14 inches.

If the wings are bent a little close to each other the bars will stay in place in the corners A, C, D, F against the ¼ inch edge while heing soldered, which may be dono very rapidly, for fastening the inch pieces that connect the hars makes all strong. Now cut four pieces 14x10 inches with a narrow fold on one edge. These are to connect A, D, and C, F, at hoth top and hottom and should come above the wings enough to be level with upper bars A, C, and D. F.

Now our frame is ten inches square and

is all done when we affix some secure loops or stirrups at the lower ends of our coinh cases to allow the frame of honey to rest just one inch below the lowest bar, which will leave the top the same distance ahove, for the machine is made just right for our Langstroth frame, so if you use a different one you can vary it accordingly. The lower bar is not sufficiently strong to attach strip of tin men-tioned to hold the comb frame, so we prolong the outer end and bring it across the corner from I to J, (see fig. 2,) and the other end is soldered to the wing near the shaft, thence across to the next wing and then across to the metal bars to form the support for the opposite comb frame; a support for the opposite comb frame; a 20-inch strip ¾ broad being used, and a similar one on the opposite side, these strips being carried across about two inches from the corner at I and I.

We should have mentioned that the corners in the sheets at A, C, and D, F, may be bent nicely with the broad blade of a carpenter's square, after turning the 14-inch fold, for the blade to rest against, as the blade is just two inches wide.

To cut the various strips used, a pair of "squaring shears," such as most tinsmiths use, greatly facilitates the work and does not bend or curl the pleces as they are taken off.

The above completes the whole of the

inside work and foots up thus:

Three sheets tin at 15c	45
Nine inches Stuhhs' steel	25
One half day's work 1	
One quarter pound solder	10

To make the can, take four of the remaing sheets of tin and put them together longest way up and down with a ½-inch rod put in the top; and hottom made of one sheet and part of another. This gives us depth of ahout 19 inches and diameter of about 17.

In the center of the bottom solder a small piece of steel saw plate, and on this a hlank iron nut, with a hole in it, to fit our steel pivot; the longest piece of steel

being used for the hottom hearing.

The short piece is to be used for the top after having soldered on one end a fixture made as follows: A three-cornered tin tube, ¾ inch long, and ¾ on each side, is made, and then each side is bent in-ward until they will clasp the pivot, leaving the three corners open enough to allow the three prongs of au apple-parer

to pass into them snugly.

The pivot may be pushed in its place in the top of our revolving frame but not soldered until we have it adjusted

to the proper length.

Push in the bottom plyot until the machine will revolve and allow the ends of your Langstroth frame to clear the hot-tom ahout an inch. This will bring the other end above the top edge of the can ahout 1/2-inch or a little more, so we must have our arm to support the center, raised enough to clear it. We would not raised enough to clear it. We would not have the ean higher because it would have the ean higher because it would necessitate raising the combs higher to remove them, nor would we have a bar clear across the top, for it would interfere with the rapid handling of the combs and we would have no greater depth at the bottom of the can, for we wish to work with it raised enough to run the honey directly from a tube, (make it large), level with the bottom into the bung of a harrel.

bung of a barrel.

We use the gearing of an apple-parer, removing all except the main wheel and crank, small wheel with fork, and bearings of hoth. The parer should he of the kinds that has bearing to hoth wheels par-allel, and uot those with bevel gearing. The cast iron that holds the wheels is to be soldered securely to, or rather inside of a tin tube 2x% inside measure, and perliaps seven inches long, in such a way as to allow the wheels to lie on the flat side of the tube and to work freely, the smaller one close to one end. This tube is to slide as tight as it can be pushed into another similar one 51/2 inches long, and the latter is to he soldered fast to the top edge of the can on the opposite side from where the houey runs out; and this tuhe must be previously hent at a distance of about 21/4 inches from the point of attachment to allow the projection on the comh frame to swing under it. To make these tubes quickly and very strong, make them in two pieces, which are like shallow boxes without ends he-fore one is inverted and pushed into the other. Thus you see the sides are double and when soldered have great strength. The two pieces for the hent one should have the sides, after turning them up square in a folder, cut down to the bottom where the angle is to be made, so that in bending the top those corners will overlap, and, when soldered, are secure at the desired angle and can then be fitted over the other income. then be fitted over the other piece and the whole soldered strong.

This arm will not be firm enough with out hracing and so we must have a piece of tin fitted to extend from the bend in the arm down inside of the can about six inches, broad enough to extend also four inches each side, tapering to a rounded point at the lower end something like the

brace to a coffee pot spout.

Your tinsmith will prohably "grumble" more at this brace than at all the rest, but never mind, for it is all done now, when we fix a little ring on the under side of the movable tube to snap over a little knob of solder on the other to prevent it drawing out, only when we wish to remove, the inside work, and our account stands for the afternoon's work The second .

Six sheets of tin used, and one
extra for mistake in work at 15c \$1.05
Iron around top of ean 20
Parer, 75
Solder, 15
½ days work, 1.00
\$3.15
Inside work, 1.80

" Now Mr Novice, that's really too bad if you leave your description in that way. Why don't you tell them how to make a sloping bottom to the can, and molasses gate, etc., just as the one you have just finished is made? And you have used heavier tin, too; and what are your pupils to do when the barrel gets full as it often used to; and how are we women to there is the second of the sec

First, it will cost more than \$5.00. Second, we can't explain such a hottom. Third, a we can't explain such a hottom. molasses gate costs 75 cents. Fourth, Our original extractor (that you wished back so many times after we sold it, and tried to use Peabody's and Gray & Winders') was made of roofing tiu, with a flat bottom, and is good yet. Fifth, cork up the tuhe when the harrel is full, of course. Corks cost hut one cent. Sixth, we can't remember sixth, and no wonder either."

"Never mind sixth. The machine that you have just finished, right here besido us, would be cheaper at \$10.00 than the flat bottom can and "corks" at \$5.00. A nice thing your "cork" would be to leave around somewhere as you always do until needed, and then have to hunt for it, barrel running over meanwhile. You may do so if you wish, hut women don't work that way."

"Tell your readers to have the bottom made like an inverted tin cover, lowest in the centre, and to have an open channel leading from the centre on a gentle slope to the faucet, and a piece of tinned wire cloth over this channel, will strain out bees, etc. But it will not stand up unless a tin hoop is made to go around the lower end, reaching down as low as the mouth of the gate."
"To he sure and another heavy wire

is needed around the bottom of this hoop for it to rest ou, and se that some screws can he inserted through the tin just above it to fasten it firmly to the platform or hench on which it is worked."

Now kind readers, each one of you can decide whether the \$5.00 style of the can, (which answers perfectly the purpose intended,) will be best, all things considered, or the more expensive form.

We have made one that allows the frame to be reversed inside of the machine, but as it is heavier and not so simple, we cannot really think it an advan-

We have also one that has a close-fit-ting tin cover over the top, but after having tried both ways, we really think we prefer a round piece of white cloth to spread over it when not in use. A ruhber cord run lu the hem will be handier than tying on a string.

If any one thinks they would like one of the revolving-can machines as well, we have only to ask them to try both. One such machine as we bave described, will satisfy any neighborhood as to which

form is most practical.

P. S. Besides the coarse strainer over the "gate" or tube inside to keep bees from running through and crawling over things daubed with honey, we use a little sack of cheese cloth hung in the bung of the barrel and kept in place by a wire ring a little larger than the bung-hole.

National Bee Journal for Dec. attempts to excuse "the selfishness, grasping and monopoly" of a certain individual by making, it appear that others are dissatisfied because they can't do the same

Now we have an old-fashioned idea that our best people do not want a copper of any one's money unless they have rendered a fair equivalent.

There may be some who envy the success of the few successful "Patent right Sharpers," but we trust their number is daily growing less.

DEAR NOVICE: - Many thanks for your little pamphlet sent occasionally to my address. I trust I may profit from your sage wisdom and advice, especially from that in your last Journal, wherein you say that 50 lbs should be the average from every good hive in the worst season. Honied words to such a blunderer as your correspondent, who could not with all the "Galloping and Novitiating" he was master of get his "full-blooded Italwasted on the desert air of this arid, rainless district during the just very "worstseason" it was my lot to ever cncounter, and with all due deference to "Novice,s" wisdom and vast practical experience in Ohio I must still be allowed to have the benefit of the doubt if even he with his hives and apple paring extractor, and "Giantesses" as queen's regnant could have obtained such won-drous results in barbarous (speaking

apistically) Canada.
Your bee-hive at \$1.00, is what I long felt ought to be the general price, and I cannot see why, with persons who are at all competent to manage bees, that it cannot be made to answer every purpose that the most expensive patent hive does

Trusting that you may keep on planning and improving for such ignoramuses as your correspondent, believe me me to remain

Yours very obligatory, P. H. GIBBS.

The \$1.00 hive is not ours, only the one we advise. To Langstroth belongs the movable frame; Gallup, the sloping joints for cover; Bickford, the quilt; common-sense, entrance, etc.; and to Novice, if anything, the credit of severe criticisms on all useless appendages. Every bee-keeper chould be able to make them for less than \$1.00. We only furnish received and they are noor workmanship. a sample and they are poor workmanship too, we notify you, but will give you the idea.

#### HONEY COLUMN.

ORCHARD, MITCHELL Co., IOWA, December 21st, 1872.

Editor Gleanings in Bce Culture:

You can tell the readers of your large journal that Gallup has 1,000 pounds nice extracted bass wood honey, all candicd and securely put up in 150-pound casks at 15c. per pound, casks thrown in.

Hurrah for Gallup again, "old hats and new!" His ofter is the lowest we have yet received and we have always have yet received and we have always felteure be could produce honey cheaply if any one could. We paid 18c, for a half barrel a few days ago, and sold it for ten per cent advance; we didn't have the cask thrown in either. That is business-like, and if we can't find customers for all "Gallup," "Hosmer," and the other veterans can produce at that rate, we shall consider our great big journal a failure in consider our great big journal a failure in one direction any way

Dr. Hamlin says he has 3,000 extracted and 2,000 comb honey, but don't give

the price.

Tell us what you ask, brother beekeepers, and we will advertise all your honey for nothing.

Our old "American Bee Journal" made its appearance January 14, but as it contains nothing but transactions of the American Bee-Keepers' Society, we have no opportunity to form an opinion of what it will be under the management of W. F. Clark. We find a strange mistake in a statement from Mrs. Tupper that should be cerrected at once viv. that should be corrected at once, viz: that when honcy is extracted from broad combs the broad is killed. Was there no one at the convention that could prevent such an error from going out before the world? We cant' help saying that the matter looks anything but flattering for the convention of America. Large numbers of bee-keepers make a regular pracbers of Dee-Reepers make a regular practice of extracting the honey from all the combs, and their brood don't die either. Mr. King may have kept still because the use of the extractor don't help the sale of closed top fraues, but how about the rest? No one need waste breath in around the matter for the extractor. breath in arguing the matter, for the oxperiment can be made at once. Revolve your brood as fast as you please and mark the comb and see if the brood dies. Unscaled brood, it is true, may be thrown out if turned too fast, but this is never necessary.

Several articles alluded to in this number were crowded out, (problems too), by the extractor, and by the way we notice that Fig. 1st, gives the impression that more than one piece of tin is used for the case to hold the combs. Imagine the letters A. C. D. and F. clear up in the corners and the marks surrounding them a continuous line, except the dotted lines, and we think you can make no mistake. G. B. II. and E. of course, should meet, so that when soldcred only a square hole is left in the center for the shaft.

We hope our friends will be patient if we do not find a place fer their favors at once. Send along the items.

# NOVICE'S Cleanings in Pec Culture.

A. I. ROOT & CO.,
EDITORS AND PROPRIETORS.

## Published Monthly, at Medina, Ohio.

Terms: 75c. per Annum.

Any one sending us 5 Subscribers can retain 75c. for their trouble, and in the same proportion for a larger number.

[PRINTED AT MEDINA COUNTY GAZETTE OFFICE.]

### Medina, February 1, 1873.

As we are now a monthly, those who wish the whole 12 numbers will please remit us 50 ets additional. To those who pay but 25 ets, we shall send GLEANINGS quarterly as at first proposed, after this number, which will be sent to all, making five numbers for 25 cents instead of the four we promised.

Several irresponsible persons have had advertisements inserted in some of the Bee Journals, and in one ease considerable sums of money were lost by our bee-keepers sending to them.

Will it not be advisable for our Editors to require reference in regard to the standing of their advertising patrons. It will be far less trouble than to require each separate individual to determine who is to be relied on and who is not.

We must positively refuse to advertise any receipts or methods of doing desirable things in the Apiary; for the first person sending the needed 25 cts or \$1.00, could, if he close, then publish it to to the world. Let information of all kinds be free, through our Journals, each one presuming that he will receive as much as he furnishes.

Samples, models to work from, or implements themselves, of course, have a cash value, but not secrets, as a general rule.

Reports of dysentery have already reached us in three cases. In the latter it affected only those colonies having natural stores; a part of them that were fed on sugar syrup were entirely heatlhy. A friend near us, fed all his colonies, 20 or over, except one, with syrup made by pouring boiling water on coffee sugar in a tin sap bucket. This was stirred well, and the syrup poured off when cold and fed in tin milk pans, with a cloth

laid over the top. Nothing more All are healthy. One strong colony, and that was fed with poor maple syrup, died with an aggravated form of dysentery, in December, soiling every part of the hive badly. He forgot our instructions to use Cream of Tartar in his syrup, but the syrup did not grain in spite of what "Confectioners" tell us, see A. B. J., page 9I, Vol. 8., and his bees are in as good shape so far as can be desired.

At the convention at Indianapolis, Mr. Hoagland says he lost bees that were fed on syrup.

Now as this is the very first ease that has ever come to our knowledge, of the kind, we would ask Mr H. to give us full facts. Was the syrup made of good coffee sugar, and had the bees no natural stores? Our experiments have all pointed so positively in one direction, that we think we cannot be mistaken.

#### HEADS OF GRAIN FROM DIFFERENT FIELDS,

DGAR SAGER, Hudson, Ill., writes:

"I "Signs of disease were noticed in some places quite early in the Fall," and that it looks rather discouraging; but it need not be so, for whenever they really commence to soil their combs, take them in a warm room and give them clean, empty combs in place of their old ones, and confine them to their hive with wire cloth until they can store some pure coffee sugar syrup in the combs and if a day occurs that they can be allowed to fly out of doors, all the better. In severe cases they must have a wire basket attached to the hive to allow them to come out in, while in the warm room, without soiling their hive and combs.

James Ferguson of Surgeons Hall, Pa., writes: "I am using King's hive, although it does not matter much what hive is used, during a dry June that dries up all the white clover which is our main dependence here"

But it does, friend F. Suppose you take your bees about April 1st, your very weakest colony for instance, put them on three combs only, and in a hive small enough so that the bees and combs fill it completely.

Now feed them, keeping the entrance almost closed and a warm quilt over them until brood begins to hateh; enlarge their hive as they increase, but always have them fill it, and they will bear considerable crowding in cool weather, and your hive must not be so tall as the one you mention or you will not be able to keep them clustered clear down to the bottom of it, which you must do always.

By May 1st, you will have a colony that will send out a host of workers if you keep them crowded, and by June, if you keep their

combs emptied with the extractor, you will be astonished to find them bringing in honey in spite of dry weather or anything else.

Don't let honey enough accumulate in the hive at any time to induce the swarming fever, but keep raising brood and we should not be astonished if you before the season closed, should say, as our "women folks" did in 1870, that they" really wished the little chaps would stop, for we have got more honey than anybody would ever want"

S. L. Root of Austinburg, O., says: I lost one hive last Winter out of twelve of dysentery. I think it was the only one that had had no upward ventilation."

We have no doubt but that your colony and many others would have been saved by more ventilation, and at the same time had they been confined to a diet of pure sugar syrup this extra ventilation would not been needed.

We have colonies now, that for experiment have entrances almost closed and top closed entirely, as close as a tight, painted cover will close it, yet they are wintering without detriment: drops of moisture hang on the cover directly over the cluster, but the bees look perfectly natural: bodies are not distended in the least, and unless disturbed, no sound is heard from them at all. Natural stores are sometimes perhaps as wholesome as honey, but can we afford to run the risk?"

T. G. McGaw, Monmouth, Ill., writes. "The loss of bees in this section will be heavy owing to the extreme cold weather, 28 to 32 degrees below zero last week. Box hives mostly in use and no eare given."

We have no doubt but that bees can be wintered out of doors safely, but the expense of the extra amount of sugar for food, would soon pay for houses for them.

J Anderson, Tiverton, Canada, writes: "My bees never did better than last season. They are now in cellar, strong and healthy, and with plenty of honey, so I expect to have them in good condition in Spring."

"My queens are all young, and from an imported mother, but well marked, and excellent workers. I would like a queen or two a little brighter. How is this secured?" See article in next number, "How to Improve our Bees." But we advise you not to get the brighter ones if you want the best honey gatherers.

Job Huestis, Eust Fairfield, Ohio, asks if "the Lindens all blossom at the same time." The period of blooming varies as much as three or four weeks, as we observed in the forests about here last season, and we think varieties might be collected that would extend the period to two or three months.

George Porratt, Winnimac, Ind., asks: "will it pay me to get another kind of hive? I use the Quinby hive, 100 of them, 72 with bees in them, and 23 ready for use next Spring. I also use the National Bee Hive Extractor. Will it pay me to get another, if so what one."

We would not change, if you have Quinby's hive, with suspended frames, but those that

are supported from the bottom we really can not think convenient. We have never seen the Extractor, you mention, but would use no extractor that obliges you to revolve the ease and honey.

II. B. Rolfe, Westfield, N. Y, writes: "I see you have thrown honey boxes aside, but I think I will have to stick to them, from the fact that I am unable to handle frames readily on account of my right hand being crippled, I can handle boxes with my left hand. I would like to raise queens and try swarming artificially, but all the descriptions look too formidable for one hand business.

"I wintered my bees in cellar two Winters without loss, but one year ago I removed the honey-board as per Langstroth, and lest forty stocks"

We think you can handle frames as well as boxes, but of course you will have to "go slow" with either. Have the frames rest on a strip of metal, or the metal rabbet, so that they can be lifted out when handled by the middle of the top bar; we often take one in each hand thus. But the metal rabbet should always be fastened in the wood, so that the back is slanting in such a way as to guide the frame into its place when the projections strike it. When the frame is in place, not more than \( \frac{1}{8} \) of an inch end-shake should be allowed, but this space should increase as it is raised to work with facility; if the back part of the metal rabbet slopes up to the top of the end of the hive all the better, and then the projecting ends of the frame slide down the smooth surface of the tin very nicely. Any tinsmith can fold them very cheaply. We feel quite sure removing the honey-boards was not the cause of Mr. Rolfe's loss. Were none lost in your vicinity that had honey-boards left on.?

Mr. S. Rowell, of Blooming Grove, Minn. thinks he has a plan for securing the fertilization of queens, and asks if we think it of sufficient importance to be worthy of going to much expense in testing it.

We have never given any subject so much time and study with so little success as the above, and really think that if the plans given us now by the best authorities were successful it would be cheaper to let our bees manage it themselves and take the chances for their purity. Some of our friends thought they had succeeded, but careful examination has convlnced us that the queens flew out after all, and some queens do squeeze through an orifice nearly or quite as small as that of the worker. Some one who has had experience may tell Mr. Rowell what he may expect of his plan without the trouble or expense of an actual trial. We have at present no faith in wire or cloth houses for the purpose.

Mr. Shaw who advertises on last page, has made many and some quite expensive experiments and with a patience and determination in trying all the plans recommended that we think deserved something better than total failures.

D. J. Bardwell, Omro, Wis., describes an extractor with a revolving can to hold four Langstroth frames as they stand in the hive, which he thinks would suit us; from which we infer that Mr. B. must be a very large, strong man. If he has a little girl ten years old and he will make her a machine such as we have described, we think she will empty the combs faster than her father with his machine.

G. W. Gamble, New Florence, Pa., asks if the metal-cornered frames may be used interchangeable with old frames, and if old frames can be used on the metal rabbit; and we reply: Without any trouble whatever

Wm. Aschom, Ligoneer, Pa., asks if the Italians stand the winter as well as the black bees with us, and we answer, they stand the Winter and everything else much better so far as our experience goes.

And the next is from a lady, thusly:

FRIEND NOVICE .- Yes, I will take your little Journal on one condition, and that is, please send me with the first number a tin type of yourself and wife. I want very much to see the man that can stir up the brethren so easily.

Respectfully Yours, Mrs. L.

Now we are awful sorry, but our best friends are those who have never seen us, and we should much rather risk sending you a a "photo" of our Apiary than our own "phiz" and loose your good opinion and all prospect of future "25 centses."

Our "better half" thanks you kindly for the compliment, and says when the "photos" of the Apiary next June, (including Novice and his family, "Extractor" and "preand his family, "Extractor" and "presiding genius," and all,) are ready that you shall have the first one mailed.

Mr. J. S. Flory, Orehard View, West Va., asks for "best method for bees to raise brood early. In this locality, our great honey harvest is in the Spring, and if they are not strong early, much is lost."

We believe we have touched all points we know of except one, and that is to close perfeetly all upward ventilation, and as bees in the Spring are almost invariably clustered close to the top of bars, a quilt will confine the animal heat much better than a heavy board. We can't dispense with the quilt even if we have to renew them every season.

Also, we must not have an empty cold space below the cluster, to avoid which we know of no remedy except shallow hives; and the entrance should be small and in such a way that the wind cannot blow into it as in the \$1.00 hive for instance. Plenty of food always of course. Bees use all their stores in raising brood in May, oftener than is generally known. This must never happen.

F. M. Woolard, Fairfield, Ill., says: "By the way don't you leave a big gap open in your sweeping assertion on 1st page, Dec. No. A. B. J., that its the bec-keepers and not the season?"

Follow directions given J. S. Flory, and James Ferguson and see if you do not agree with James Bolin and ourselves,

#### ADVERTISEMENTS.

Advertisements will be received at 10 cents per line each insortien, cash in advance; and we require that every Advertiser satisfies us ef his responsibility and intention te de all that he agrees, and that his goods are really worth the price asked fer them.

A LSIKE CLOVER SEED—A nice article, pure with the exception of a small quantity of Timothy seed; 50c. per pound by mail or 35c. by express. A. I. ROOT & CO, Medina, Ohio.

POR SALK-A FEW CHOICE COLONIES OF Italian Bees, warranted pure, at \$25 each. Also 20 colonies, not warranted pure but in excellent condition for honey stering, at \$20 each. All in movable cemb hives. Apply to ITALIAN BEE CO, Des Meines, Iowa.

TALIAN BEES—We offer for sale about 200 celouies of Italian Bees in the American Movable-Comb Hive. Also Queens throughout the season. Purity and sale arrival guaranteed. For further particulars, prices, &c., send for circular.

BALDWIN BROS,

Sandusky N Y

Sandusky, N. Y.

CHOICE ITALIAN QUEENS FOR 1873— I have increased facilities for rearing Italian Queens the coming season. The choicest Queen-Mothers to breed from, and no black Beesto inter-fere. Send stamp for circular to W. J. DAVIS, Youngsville, Warreu Co, Pa

TALIAN QUEEN BEES FOR 1873-Will be bred frem Imperted Mothers, ene of which is one of Charles Dadant's impertation. Porsons whe purchase Queens of me will get what they bargain for. Send for circular.

COLERAIN, Franklin Co., Mass.

M. ARGO, IMPORTER and BREED-M. ARGO, IMPORTER and BREEDsy to my friends and custemers, that if I am
fertunate in getting my bees safely through the
present winter—as I generally lave been, heretofere—I will have for sale, oarly in the spring,
about twenty-fivacelonies with cheice queens.
I alse expect te liave a few queen breeders to
sparo in April. Having the advantago of a
more Senthorn lecation, I can furnish queens
carlier in the season than Northern breeders.
All cemmunications premptly answered. Please
enclesse a three cent stamp for letter. Circulars sent free. Address, Lewell, Garrard
Ce. Ky.

PRICE LIST OF PURE ITALIAN

Queens and Bees from Shaw & Daniel's
Apiarios, for 1873:
For last year's Queens, sent as oarly as the
weather is suitable, \$5 each.
Testod Queens, during the soason, \$4 each.
Untested Queens in Juno and July, \$3 each.
After the 1st of August, \$1.50. All Queens sent
by mail warranted puro and fortile. Safe arrival guaranteed.
Nucleus' Hives containing pure Queen, with
6 frames each, 8½ by 9½, \$3 each. Can be built
up into strong swarms or used for wintering
surplus Queens.
Full colencis in one story Langstroth Hives,
ten frames each, \$13. Wide hives with movable
partitien board from 14 to 17 frames each, \$15.
Twe story hives containing 21 frames, \$15 each
American Hives, containing 9 frames with
space between tep bars, \$15 each.
Each colony will contain a yeung Queen and
9 frames of comb, with extra frames. Sent hy
express and safe arrival guaranteed. Address
JSHAW & SON, Chatbam Center,
or J. E. DANIELS, Lodi, Medina, Co., 0.



Or how to Realize the Most Money with the Smallest Expenditure of Capital and Labor in the Care of Bees, Rationally Considered.

#### PUBLISHED MONTHLY.

Vol. I.

MEDINA, O., MAR. 1, 1873.

No. 3.

#### STARTING AN APIARY.

No. 3.

N making hives, whatever shape or form you decide upon, be sure and have the grain of all the boards run horizontally. If this point were recognized by our "patent hive" venders, much less annoyance would be experienced from the results of using imperfectly sensoned lumber, as it is well known that shrinkage takes place almost entirely at right angles to the grain; and where hives are made as above, even if the lumber be unseasoned no bad results follow, except to decrease the distance between the lower bar of the frames and the bottom board, and accordingly where our pine boards are unseasoned, we should allow from one-half to three-fourths of an inch, presuming they may at no time come nearer than three-eights of an inch.

Also: It will pay you to take time to put every board on the hive in such a way that the heart side of the board comes outward. Every board is to be examined with reference to that at the time you do the rabbeting. Boards are always more disposed to warp in such a way that the side that grew towards the burk of the tree will be hollowing, and in hives exposed to the weather, if we can keep the corners and edges of the boards close up to their places our hive will keep tight; also the dampness of the bees inside contrasted with the hot sun outside, is inducement enough for the boards to earl up without having them put on "wrong side out."

For this latter idea we are indebted to a mechanical friend whose skill and researches in regard to the properties and fitness of wood or metals for industrial purposes, are destined soon to make him better known to the world. The success of many of "Novice's" plans and contrivances has been very much due to this same Mr. Aleah Washburn, especially the Windmill and attendant machinery.

Since our last we have succeeded in making the entire body of the dollar hive of lumber 12 inches wide, which is quite an item, as we can thus get along without waste and as it is a staple width can always be purchased at a low figure. Get boards 12 feet long dressed on both sides to  $\frac{7}{8}$  of an inch accurately in thickness, and cut each one into four pieces of equal length. After you have straightened one edge of each piece, removing as little as possible in so doing, cut a side and end from each; lengths, 16 and 19½ inches respectively. Rabbet all the ends of the end pieces  $\frac{2}{8}x\frac{7}{8}$ , and bear in mind what we said about having the heart side outward. We must make it a study to handle each piece as few times as possible and to facilitate this we have devised the little arrangement illustrated by the following figures:

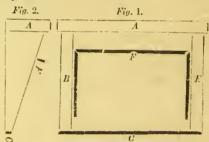


Fig. 1st is a top view of our wedge shaped platform for sawing all the bevels, and Fig. 2d, a view of either of the ends B and E. The three pieces A, B and E, are made of our \(^x\) pine boards. A is 3½ x15 inches and B and E are 2\(^3\) inches, where A is nailed into them, and \(^\frac{1}{2}\) inches on their longest or apper side. C is simply a strip to hold them together. F is a spring stop just 1\(^3\) inches nearer the saw than A, and is simply a strip \(^\frac{1}{2}\) inch thick screwed fast, to two hickory springs fastened on the inner sides of B and E in such a way that it can be pressed down between them level with their upper edges, but rises again when allowed to. To use the apparatus set the gnage har on your buzz saw table so A will slide against it and just allow C to clear the saw; now hold the finished edge of either one of your

side or end pioces close up agalust A, and of course the other edge at C will be straitened, beveled, and the piece brought to an equal and proper width at one operntion, the spring stop F being pressed down meanwhile; we now turn the board over and let the beveled edge rest against this stop, which allows the saw to ent off on the same bevel a strip 13 inches wide. These strips have one square edge which fits in the \$x\frac{1}{8}\$ rabbet in the cover, and the other edge is on n bevel just to fit the bevel of the top edge of the hive, for it was sawed off from it. To make the bevel around tne top edge of the cover, stand our little muchine on the side A, with C straight up; place the board for cover after it is rabbeted, against B and E, with the corner of A in one of the rabbets; set the guage sufficiently near for the saw to beyof the edge back about & of an inch; when you have thus beveled the top on each of its four sides, our hives are finished except the rabbet to hold the frames in the end pieces, and we now make them axl inch instend of 11 as given in our eirenlar. We should prefer 11 inches ns it makes more room for the quilt, but in that case the distance between the frames of the upper and lower story is rather too much, although we have for several years used two hives in which the space is 12 inches with no bad results; energetic "Hybrids" even, preferring to make comb in the frames and only filling this space when they were "ont of a job" otherwise, and in very hot weather we have thought that this air space much assisted ventilation. If we use 12 inch lumber every fraction of an inch in width must be economized.

We make the Gallup hive in this way of 14 iuch lumber, eutting off lengths for eover and sides exactly 19½ inches, for ends 13 inches, and making our rabbets in side pieces instead of ends. Allowing for saw ents we only require about 71 feet in length by 14 inches in width, or 81 feet of lumber for the hive complete; costing not to exceed 22 ets. per hive when bought in quantities, and the amount is just about

the same for the hive we use.

"Mr. Novice why do you keep calling a body and eover, without any bottom board a hive; if two of them are required to make a complete hive why not call it a \$2.00 hive at once instead of 'the dollar hive?' And ngain we are afraid your renders would hardly eall a hive without frames, what is generally understood by the term 'bee hive.' Let us see:

A two story hive is.....\$2.00 And 20 frames such as we use at 6e 1.20 Quilt...... 0.25 Door step......0.10

And we have expense of hive com-Instead of your modest 22 ets. that you were so complacent about when we inter-rupted you."
"There now! Do you see how much

mischief you have made? It will take us so long to unruvel your figures, as above, that we shall get no room at all for the 'Windmill,' and for 'April,' we shall be obliged to go over transferring, and for June's

"Please don't barrow trouble about June, for its now only Feb. 11th, but tell us how

to get from 22 ets. to \$3.55.".
"Well, all right; now just see if we can't make a good hive for a dollar." If the lumber only cost 22 ets., the hives can eertainly be cut up and nailed for 50 ets. more, and frames such as are ordinarily used do not cost over 2 ets. each, making 92 ets.; in place of quilts something can be made of old carpeting, coffee sacks, or old clothing for the remaining 8 ets.; and most bee keepers that we have visited place their hive on some kind of a board, bench, stand, or platform, in which case no bottom is absolutely necessary, especially in warm weather, and box hives very seldom have any, and now as we have shown how a very durable and most convenient hive can be made for \$1.00, we will add that we should prefer to throw all the old boards, clothes, and benches away and make two of the "dollar" hives for each colony. Use the cover of one for a bottom board for the one that contains the bees, and all is complete during the honey season; at other times of the year keep your spare combs set away in the spare bodies, piled up on each other, and the workmanship should be such that they fit on each other close enough to exclude not only mice but auts and moth millers. In the swarming season these hives withont a bottom answer temporarily, very well; see what Adam Grim says on page 213, Vol. 6, American Bee Journal.

Our idea is that we want the fewest possible implements, consistent in an appary, and want those as light as possible and made with no superfluous lumber or metals. In nailing the hive just mentioned, nail the corners well, and drive the nails as near the edges of the boards as can be done without splitting. Use seven-penny nails to go through the whole thickness of the boards and "fours" to go through where the rabbet leaves only inch. We use four nails of each size for each joint, and drive them as near together as we can without striking where they cross cach other. Make up your mind that you will learn to drive nails just where they should be, and don't let their points ever show themselves by running out of the wood. Make your hives such that they will never come apart or loose if used yearly for a lifetime, even if they have no stationary top or bottom. Paint them as soon as done with the Averill chemical paint, (white,) and keep them painted. We should never use any thing but pine lumber after what experience

we have had with other kinds.

We are just advised of the sad intelligence of the death of Mrs. Langstroth,

#### NOTICES OF OUR BEE LITERATURE.

OUR old American Bee Journal hails now from Chicago, and the Feb. No. is fully equal in value to what it has been formerly, and in some respects considera-

bly improved.

In our January No. we spoke of queens offered to subscribers by the National Bec Journal. Our remarks there referred to Mr. Mitchell's offer some time ago. We learn the present proprietors (Mr. King is only one of them) have shipped a large number of queens and we believe propose to send all. It such is the case we certainly would wish them the success they deserve for making not only their promises good, but their predecessors.

ises good, but their predecessors.

Mr. Moon says in his Journal that we evidently have had but little experience, which is just what might be expected from the "Gleanings of a Novice." His Jan. No. contains several good articles from some of our best bee keepers. If Mr. Moon would tell us why he "has seen the folly of advertising queens as premiums," we should perhaps feel more neighborly. We can't see any folly in making good all promises to subscribers, whether we are out of pocket thereby or not.

Mr. King has given us two numbers of the Bee Keeper's Mayazine, without any "patent hives;" and in the last he gives us some funny pictures about "hiving bees

when the ladder broke."

Mr. R. Wilkin, of Cadiz, Ohio, sends as "Bee Culture," and, although it don't tell about the extractor, it is so full of quaint truths that must have been actual experience, that we can henrily recommend it. It shows plainly that Mr. W. cares more to give real aid to his readers than to impress them with the extent of his own knowledge or skill. A rare virtue. Price 25 ets. paper; cloth 40 ets., and well worth the money to any bee keeper.

#### WIND AS A MOTIVE POWER,

mnking the hives we have mentioned, we decidedly prefer a Windmill. We have no trouble with engineers, fires or firemen, and our Windmill has taken almost entire care of itself for the past two years we have used it; spreading its suits to catch all the breeze when more power is demanded of it, and then again turning them ont of the wind when it has accomplished the work or when the wind rises to a gale, for our hands now work right along unconcerned amid our "fiercest blows" feeling confidence in the windmill's ability to take care of itself and spread only jost so much suil as is needed to do the work.

We regret that it seems next to impossible for effective windmills to be home made, and to be also made so as to withstand the high winds that they are necessarily subject to. In our boyhood days we made windmills that furnished consider-

able power, but alas, the beloved windmills and our hopes too, were dashed to the ground by the first wind storm.

Some one in the Scientific American a few months ago, spoke of making them strong and "letting 'cm spin" when not wanted to use; but we think the folly of such a course could be demonstrated by

about one experiment.

The American Agriculturist for May, 1872, gives a drawing and some very sensible directions for a home made mill of small power; and we see no particular objection to their plan except the trouble to go to the top of the tower whenever it was to be stopped, for a windmill to be effective must be elevated above surrounding objects entirely. To get the necessary strength and durability, considerable iron work must be used, and this can be made much cheaper at a special machine shop for the purpose than by private individuals.

Our mill is of the "Continental Co.," sold by A. P. Brown & Co., 61 Park Place, N. Y. It is 17 feet in diameter, price \$400. Is elevated on a tower 55 feet from the ground and was rated at 3 horse power, which we think is a very fair estimate.

The U. S. Wind Engine Co., of Batavia, Ul., also do a large business in making windmills and we give below an extract from a letter just received from them in regard to their mills:—

"We make a 12 foot power mill, but do not consider this size of sufficient power to run a circular saw with any degree of satisfaction. We think the 16 foot mill would give good catisfaction in every instance. We cannot recommend the 16 foot mill for running much machinery at the same time. We understand the sawing to be done to be of very light stuff, and therefore have said that we thought it would satisfy. We would, however, prefer to sell the 22 foot mill.

Respectfully, Yours, U. S. Wind Engine and Pump Co."

Prices of the above mentioned mills are ahout 150, 350, and 550 dollars. Both companies we believe are prompt and reliable, and prices are probably not much different for the same quality of work. To sum up, our advice would be if you think you are smart enough and care to take the risk of having it blown down, build a home made windmill; but we believe we should prefer to invest the \$150 and have one that we know was all right, even if it were necessary to wait for n windy day to do our sawing. With a 15 or 17 foot mill such as we use you could probably saw, on an average, three days in every week; more in winter and less in summer. With a 22 or 25 foot mill, even n gentle breeze would be sufficient to run buzz saws or almost any kind of micchinery, and there would be few days in the year so still that it would not run. Further particulars may be had of the maunfacturers.

## NOVICE'S Cleanings in Hec Gulture.

A. I. ROOT & CO.,

EDITORS AND PROPRIETOUS.

## Published Monthly, at Medina, Ohio.

Terms: 75c. per Annum.

Any one sending us 5 Subscribers can retain 75c. for
their trouble, and in the same proportion
for a larger number.

[PRINTED AT MEDINA COUNTY GAZETTE OFFICE.]

#### Medina, March 1, 1873.

You can work nearly twice as fast in cutting up stuff for hives and frames, if you have a child to assist, by handing the pieces and taking them away.

WE shall really have to give up telling what we are going to give next month, for so many new things are coming up continually, that the best we can do on our limited number of pages is to consider what seems to be of the most interest to the greatest number at the time.

WE most heartily commend President Quinby's address, to N. E. Bee Keepers Association, given in Utica Morning Herald of Feb. 6th. We really wish our pages were sufficient to give complete, one of the ablest efforts of a great and good man.

Problem four develops such a variety of opinions that our "Table" at present would be a sorry affair. Please don't get into any argument for we want truth in this matter, and argument seldom ealls it forth; and don't theorize, for we want facts only from experience in this.

In our first two numbers we made an error in giving the price of Messrs. Shaw & Daniel's untested queens, after Aug. 1st \$1.50, instead of \$2.50 as it appears in this number. Mr. Shaw's plan of wintering queens in a hive containing 6 frames just half the length of the standard Langstroth frame seems to work well. The little hives are neatly made and it seems to us there can be no cheaper way of getting a queen safely, very early in the season, for they answer almost every purpose of a full colony, and the expense of shipping is much less. For shipping and for wintering surplus queens, we are

pay, and we should like to hear from hee keepers on the subject. For the sake of having them a regular uniform size we suggest a frame 8½x9½, and then five frames would make them just one-fourth the eapacity of the standard Langstroth hive; at any rate do let us have them with frames interchangeable when we buy and sell hives.

WE learn the great yield of honey obtained by Mr. Davis, of Delhi, Mich., was principally from a yellow flower that sprang up after a swamp was burned over in the fall of '71. Will be please give us a full account of his swarms and surplus, and also of the plant mentioned, and how "the bees filled with honey, combs built on the outside of their hires" because he "hadn't time" to give them room inside.

WE hope our readers will excuse us for declining to send any articles pertaining to Bee Culture C. O. D. Our profit is too small to even pay "return charges" on money. Send us Post Office orders payable in Medina, or New York draft. As letters rarely miscarry now a days, small sums can be sent safely by mail. We have heard of but few failures in over 500 letters sent us in the past two months.

Our bees were placed on their summer stands and enjoyed a full flight Feb. 19th and 20th, but we put them back again "cause it went below zero;" and we are sure it paid, for we found one queenless colony and one almost "bec-less," also, that we combined much to their satisfaction as well as ours. All were in fine condition except some weak nucleus colonies made quite late to save surplus queens. Seven out of twelve of these were all right, but the remaining five were fed as late as November and having too few bees to seal up their syrup before being "honsed," they quietly "slid out," and now we have only 69 "living hives," all good except one with a drone-laying queen and all old bees for an experiment, but with scaled combs of syrup, they are healthy and bright, although their numbers are decreasing. When we returned them to the house, mercury stood four below zero, and even Hybrids, when dis-turbed were content to dive down into the cluster after a "very brief" show of war, such as "standing on their heads, etc." Although they were "housed with a rush," scarcely a bee was lost.

## HEADS OF GRAIN FROM DIFFER-ENT FIELDS.

DYSENTERY.

E insert the following as it gives a very fair idea of the great bee disvery fair idea of the great bee disease or dysentery:

ease or dysentery:

I can give you nothing that is fresh in the beekeeping line. It must be the old story over, and what do your eare for that? We shall never get thed of talking of our losses last spring and winter. For 16 years past I have wintered my bees in one place, a large dry cellar, from 80 to 100 swarms, and often not lose a swarm. Last fall my cellar was never in better condition, all the stocks strong in bees and honey, honey very thick, all frames nicely capped, and bives properly ventilated. The dysentory began its work about the first of February picking out here and there a swarm, ten or fifteen swarms were not affected at all; but all were very nuch reduced in number caused by the contusion in the cellar of the affected swarms. My actual loss in the cellar was only 4 swarms from 83, but when I carried them to their summer stands in April, then the few bees left in the affected hives, with their queens in every case, came out. So of those small swarms that came out the first day and lit in one swarm most all of them had queens, left hood in all stages, plenty of honey, hive dry and in good condition, for the excreuent was on top of the honey board and outside of the hive. I returned many to their own and other hives, gave them fresh box honey, but stay they would not, for when flowers came I had but 40 left from 83, and they were in very weak condition. To show you I had bees enough when my bees went into winter quarters; I carried out in tho spring 4 bushels of dead bees from the cellar bottom. Bees were swept off all over our State in this way. We had a hard drought to contend ugainst this summer, very little swarming and but small amount of box honey. My bees, 51 swarms, are back in their old winter quarters and in very fair condition. Let usee the result this winter.

We presume you all know that we take the position that there are always at hand

We presume you all know that we take the position that there are always at hand simple remedies for all evils in beckeeping, if we only work earnestly to get them; and in Mr. Dart's ease we would first intimate that however thick and good honey may be, it does, nevertheless, often produce the result mentioned; but had their stores been sealed sugar syrap no such confusion would have resulted. In regard to leaving their Lives in spring as the result after such excitement, enging the queens for a few days might have saved them, but great eare would have been necessary to see that they were not deserted and chilled. Mr. Hosmer's ideas in Bec Keeper's Magazine are good but not quite sufficient we think. One of ours swarmed out in this manner three times last spring and only gave it up when we gave them a new locality. Shaw, Chatham center, this county, uses a contracted entrance to keep the queen inside, and if the bees go back to their own hive all is well. He lost more queens in this way with elipped wings than those which were not elipped for they will assuredly swarm out all the same.

FEB. 10th, 1871, A great many bees are dying in this part of the country this winter, from the combined effects of dysentery and no shelter during the long continued cold weather. I have lost six of seventeen, and expect to lose more. Others have had still greater losses; one man has but five left of fifty-five; another four of thirty, others have lost various numbers rauging from three to eight, from lots of ten or less to thirty; the loss being greatest where the bees wore increased most by dividing last summer, the result is that some are begining to decry movable comb hives and extractors. One man enid to me "I tell you you must throw nway those patent hives and take the old box gum." He doesn't take the American Bee Journal. Another has sold his extractor for half price, offers his empty hives for sale, and is going back to the dark ages of the box hive. He doesn't take the American Bee Journal either. Hoping these rough items will not weary you, I am

Respectfully, Yours,
Hudson, III. Eddas Sagen.

Bless your heart, brother "Novices, send along the "rough items" by all means. And above all things give us reports of the disasters and difficulties in bee keeping. We believe those who have the best opportunity of judging, agree that dysentery prevails alike in box hives and frame hives; and among those win-tered in doors and on their summer stands; and also those that gathered their honey early in the season as those that had all but the late honey extracted; though single localities may seem to favor at times any one of the above reasons given. So many eases have been reported when the honey was thick and capped over that we are forced to think that thin or even sour honey has but little to do with it, but notil some one can give us a plain direct fact, showing that bees have ever heen troubled with it when confined to a diet of pure sealed sugar syrup, we must insist that the preventive is simple and still easy. Could our readers all see our bees at this date, Feb. 12th, healthy, natural and quiet, we think they too would have some of the faith that we have. One marked colony that was given mostly natural stores, as an experiment, has soiled the front of their hive; and bees are dying with it in our neighborhood, but we think from reports that colonies left out doors are dying most. We most sincerely pity the bees and their owners, but feel sure that this great drawback to successful bee keeping, is sure to be made to yield to our earnest endeavors to conquer it.

J. W. Johnson, Shelbyville, Ind., writes: Bro. Novice.—Will not three or four thick-nesses of newspaperanswer the same purpose of your quilt? I use this, it is cheaper and more convenient than quilts.

We have used them some, but they tear easily, are more trouble to put in place and our bees tear them up and eary them off in little bits.

Geo. F. Palmer, of Cinciunati, Ohio. "De you ever sell specimen copies of your Gallup style of hive?"

Yes, and can furnish them at the same price as the "dollar" hive, but if questions keep coming at the rate they do now, we wish some other bee keeper would make better hives than we do and sell them cheaper. It can be done,

Dr. W. H. Sedgwich, Granvillo, O.: "What will you take to make me one of those extract-ors described in Feb. No.? Your workmen in Medina know better how to do it than any tin smith who has never made one, that's all."

But our tin smiths don't, for Novice does it mostly himself, and the l'reight ou the articles meutioned in the last two questions would more than make the difference in expense. Go to work with your tinner and show him how. Our time is so fully occupied already that some one could certainly make them cheaper than we can, but to those of our friends who insist upon it, we have promised to make them as cheaply as we can. Every bee keeper to be independent should make his own hives and extractor at home, and the business of "Gleanings" is to tell him how.

Mr. Palmer, of Hart, Mich., replies to our quostion in the Jan. No:—Mr. Novice;—I use simple two story hives of different widths. The smallest is fifteen inches wide and contains twenty frames, ton below and ten above; the largest is twenty-two inches wide and contains thirty-two frames, sixteen below and sixteen above. The frames are 9x18 inches inside measurement. To prevent swarming give a young queen plenty of room and take the honey with the extractor. I keep the queens wings clipped and if I have a choice queen that I want to be sure and not lose, I use Quinby's queen yard and it works like a charm. like a charm.

Mr. F. W. Chapman. Morrison, Ill., answers Problem 1st, and sends us a sample of beautiful hard candy that we think cannot fail to answer. Many thanks Mr. C. We should have no fear of the acid at all:

It is prepared by adding to each pound of sugar I gill of water and 1½ table spoonfuls of "cider vinegar" all boiled together until it will harden when dropped in cold water and be brittle, about 15 or 20 minutes boiling. When cooked pour into pans (greasod) and when partly cool cut it into shape. You see there is no expense and but little trouble: by pulling and working it makes nice cream candy, very white. I have fed it to bees like this and have seen no bad offeet from its use. Do you think there is acid enough in it to do injury if fed largoly?

We presume everybody knows by this time what remedy we would advise to our friend who comes next. How his bees can be saved without an extractor we don't know.

The greatest drawback to bee keepers in this part of the country is what is called honey dew; it is always followed by dysentery. There has been three crops of it in twolve years, and I have lost more bees from that cause than all others. This has been the case as far back as I have any knowledge of bee keeping. My father lost bees from the same cause more than thirty years as bee keeping. My lather loss accessing than thirty years ago, Yours, Truly, New Salom, O. Morris Smith.

Loyd Jones, Galva, Ill., writes: "I am a beekeeper but have only four swarms; am affocen years old, but that don't make any difference; I like your style of writing and your good common sense, but never mind send me the "Gleanings."

Many thanks to our young friend, we will try and not "mind" in any way that will detract from the common sense he has given us eredit for. When we can help you call on us, for we have lots of work for you and all bee keepers of your age. Tell as about your four hives; what

kind are they, have you a neat tidy place for them, with everything square, clean and business like? Make everything as slick as a banker's ollice and when opens" be sure and 'do your part.

W. F. Patterson, Freestone, Ohio, writes: "I fed a part of my boes with syrup, they have come out but little; the others have come out overy ebance and soil everything near tnem, and I much fear they are diseased."

them, and I much fear they are diseased."

West Lon, Ohio, Dee, 18th 1872.

Friend Novice:—I am using the standard, two story, Langstroth hive and last summer I found that in some strong stocks, after putting on 12 four lb, honey boxes, all an eleven inch cap would hold, there would still be a cluster of bocs outside; so as soon as the bees had got fairly started in the first 12. I raised them up and put 12 more under them thus making them four boxes deep, and I found that strong stocks would fill the entire 24 boxes almost us soon as they would twelve. In this way I attained over one hundred pounds each, from a number of stocks, notwithstanding our old fogy bec keepers say the season of 1872 was the poorest we have had for ten years. I neglected to state in the proper place, that when I put on 24 boxes that I took the cover off one cap and then put that on the hive and the regular cap on the top of it, thus making a three story hive. I have sold all my box honey at 25 cents and extracted at 18 cents. I have 88 swarms of bees, all Italians, stowed away nice and sning in a house similar to yours. I have wintered my bees in it for the last two winters and they come out all right, whilst the neighbors bees on all sides have died. Please excuse the length of this rambling letter, and may long life and unbounded success in his chosen pursuit, fall to the lot of "Novice." is the wish of his friend

James Bolin.

If it does seem that any body should be satisfied with such a result was any

If it does seem that any body should be satisfied with such a result, we can't help thinking that Mr. B. would have obtained 400 or 500 lbs. had he used the extractor. At the price he quotes extracted honey don't seem to be much behind.

Wm. Witter, of this place, has just lost a fine colony that had eggs and brood, and plenty of stores of sealed sugar syrup. An examination shows that their brood is located at one side of the hive and their abundant stores on the other; all their food being exhausted within reach, and the weather very cold gives us the cause as plainly as if written on the hive. When we wintered out of doors we lost many in just the same way, and if those who advocate "double walled hives" and summer stands, will tell us how to obviate an occasional case like the above, we should be glad to hear it. The double walls may prevent the sun from warming them up the first sunshing day, and thus cause their ruin. In a properly constructed bee house (and we are now colleeting all the items we can for directions to build one) the bees can at any time go to any part of the hives for stores.

C. B. Porter, Ann Arbor, Mich: "I have studied hard on your extractor and don't un-derstand it."

Tell us what you don't understand and we will try again.

J. Hunt, Sparta, Ga: "I have spent fifty-three dollars and have made as complete failure as you ever heard of. I have one colony less than half I commenced with last year; paid for two quoens and lost both. I now write you thinking you can put me right."

We are afraid some of our friend's money went for "putent rights." If so it's gone, but friend H. don't let any more go that way. Before warm weather comes we'll try and tell how not to lose queens.

C. W. Stokes, Atchison, Kan.: "I kent the weight of twe hives and they kept within one or twe pounds of each other all summer, the best one gave 140 bs. I took 70 bs. of basswood honey, at one time, from one hive."

We feel quite sure that the latter colony must have labored at a considerable disadvantage with 70 lbs, of honey in the way.

way.

John A. Buohanan, Wintersvitle, O., writes: "All my bees had to be fed heavily to earry them through the winter except six that were in long hives with leng frames; and they averaged no better in the spring than the rest of the stocks that are in hives with short frames. Some of my hives are tall, the gate post kind, (American Bee Hive we presume—ED. CHEANINGS,) with divers sticks of wood to knood. The spring being cotd and unfavorable for breeding, bees increased slowly save ander the most favorable circumstances, and this is the case when bees are in long hives coutaining long combs, so the brood can be extended horizentally without the necessity of having to divide the cluster to take in more frames until they have increased in strength sufficient to permit such a change.

S. Hathaway, Muncie, Ind. "From the

S. Hathaway, Muncie, Ind: "From the best information that I can gather in regard to the present status of bees in this section of the State, I am led to believe that three-fourths of all the colonies are dead, and the retuaining ene-fourth very weak in numbers. Some of the colonies appeared to have dysentery; others looked as though they had frozen to death; and those the best supplied with stores appear to have suffered most."

If things are really as bad as the above, we don't wonder that hee-keeping is considered precarious. We trust, however, to learn better. For reports us to what may be done with bees that are wintered see the following:

see the following:

Novice:—I put iato winter quarters last winter 46 hives, sold two in the spring, and had 38 left, the rest having died. From the 38 stocks left I got 112 swarms, and we estimate thoy had 7,000 pounds in storos. This may not be interesting. N. B.—We give our whole plan for a new honey extractor only by request: the same also of enr new hive, which, we think, will do away with Mr. Palmer's troubles with propolis. Our own opiuion is, we have the best hive ever invented, and the cheapest. Will never have it patented, nor anything we may happen to invent.

J. L. Davis, Delphi, Mich.

P. S.—Send "Gleanings" quarterly. Your mode of managing bees is not adapted to this locality. I have an extractor very similar to yours, but I will not use it except to give room for the queen, which necessity does not occur oftener than once in four or two years. I use the Langstroth hivo cheight ten inches) and but one size frame for bive, and but one size small frame for surphus and nucleus hives.

You gestown, Pa.

Youngstown, Pa. Many thanks, Mr. D., even if your criticisms be somewhat strong, for how are we to improve unless we have kind friends to tell us of our failings. If you are as rendy to learn as we are, which we cannot doubt, we hope to show you that your extractor can be used profitably every year, and on the other hand we admit that comb honey in some form will be in such demand for years to come that its

production must be considered; and Mr. D. gives a most excellent idea, viz.: nsing the half length frames, montioned on another page, for nucleus hives, for box honcy also, or rather for comb honey and these small combs can be removed one nt a time as soon as sealed, and bees brushed off without trouble. We have been informed by those having sold honey in this shape that it brings the highest prices in the market and sells readily singly, or in suitable boxes by the quanti-

#### ARE EXTRACTORS "DANGEROUS?"

N effort is being made by patent hive men and others to make it appear unsafe to trust "beginners" with the extractor "They'll make mischief by throwing out the brood, starving the bees, How is this, fellow novices? How ete.' many years experience will it be necessury to have before we learn that bees will starve it all their honey be taken nway nt times when they are gathering none? If you wish to have the same number of colonies in the spring that you had the fall previously, invariably, we say remove all their honey in September, and replace it with sugar syrup which at prescut cost does not exceed 10e per lb. When you ean't sell your haney for that write to us.

In extracting if you turn considerably faster than is necessary to remove the honey, you will throw the unscaled brood out. It our Young American bee keep ers are not bright enough to learn the two above simple points in a few weeks, they ought to be ahem, obliged to come and see "Novice" and let him talk to them. We say give us the extractor the first thing: "We want to see the folly on't too, as we once told our grandmother.

When we have thrown out some bruod and starved a colony or two, to see how it works, we'll learn.

We can give you the addresses of bee keepers who have bought bees and extractors and made a fair profit the first year; and so can you, each and every one of our readers if you only think so, and are willing to work, study and learn. We should have much greater fears of your bees starving if you took advice from hox hive bec keepers or venders of "closed top or side frame" hives, than if you used your own "common sense" unaided.

Cur from a large sheet of coarse brown paper, a piece two inches larger than the quilt each way. Lay this over the quilt and then push down the eap, or upper story, and all the upper ventilation is closed completely, as we want it, in spring as soon as the bees are on their summer

#### PROBLEMS.

O. 5. Can no way be devised to get the bees from a strong colony away from their combs without shaking and brushing them off with a bundle of asparagus tops, etc. For instance we have ac-

complished something this way

Take a strong colony in the dollar hive and raise it from the bottom board enough to allow a similar hive full of combs just extracted to be placed under it, and the greater part of the bees will be found in a few minutes on the lower combs attracted by the honey spread about on the uneapped cells, and their desire to clean up everything tidy. Now remove your upper combs and you have but few bees in the way, and these combs when extracted can be used similarly for the next hive and so on. Now if by some stratagem we could coax all the bees below quietly. wouldn't it be jolly?

No. 6. One of our subscribers raises moth worms all he can, uses all his pieces of comb and old broken hives for the purpose, yet is troubled no more than tormerly with "Millers." (Which we don't doubt at all). Who can guess why he raises them? "Answer next month." P. S. He don't eat 'em as they do snails in some countries, so don't guess that.

No. 7. Sawdust around the hive to keep down the weeds and to keep the bees from erawling under the hive when we extract, is liable to eatch fire when we are obliged to smoke them. Is there any thing else as cheap and effective that won't burn? "Scientific" makes the makes the query and we second it.

#### HONEY COLUMN,

HAVE 400 lbs. of the purest Liun honey to sell at 18e. wholesale. Thomas Hare, Marion, Linnu Co., Iown.

L. Beekwith, Berlin, Wis., says; "I um not satisfied that it is best to run all in extrueted honey. I understand that it has been slow of sale in Chicago at 8 to 10c., and hard to sell in Milwaukee at allcan sell a few lbs. at home for 12 to 15c. in trade, when good light comb honey is wanted ut good prices, therefore I want the best way to average 100 lbs, of box honey, in a good senson, per swarm. With sure and ready sale for extracted honey at two-thirds price of box honey, I should of course run entirely on extracted.'

We think Mr. B. quite modest in only wanting 100 lbs. box honey per colony; ree should not dare promise so much extracted; and that reminds us of a prominent bee keeper who writes, that it's no trouble to make boxes, for he sells them by the lb. for a good deal more than they cost. Now in Mediua they always wish to return the box, and when we object they reply: "Want us to puy 30c. per lb. for all that wood and glass? No sir 'ee! take back the box honey and give us

the pure stuff in the glass jurs for 20c." We presume it will take a little longer for people to get weaned from "beeswax honey," than it did a few years ago from "tallow eandles.

F. F. Nunn, Peru, O., has 2 bbls, nice condied homy; wants 20c, for it.

Somenony advertises rubber gloves for bee-keepers, for no other reason that we know of unless it is because they "want to sell 'em;" for any bee-keeper who has tried them very well knows how much "worse than nothing" they are.

Get Oats and Rye ground together for feeding, soon as bees can fly. Have it ground fine.

#### ADVERTISEMENTS.

Advortisements will be received at 10 cents per line each insertion, each in advance; and we require that every Advertiser satisfies us of his responsibility and intention to do all that he agrees, and that his goods are really worth the price asked for them.

TALIAN QUEEN BEES FOR 1873—
Will be bred from Imported Mothers, one of which is one of Charles Dadant's importation. Persons who purchaso Queens of me will get what they bargain for. Send for circular.

COLERAIN, Franklin Co., Mass, 27 nelar. WM. Colerain, Franklin Co., Mass.

PRICE LIST OF PURE ITALIAN Queens and Bees from Shaw & Daniel's Apiaries, for 1873:

Apiaries, for 1873:

For last year's Queens, sent as early as the weather is suitable, \$5 each.

Tested Queens, during the season, \$4 each.

Untested Queens in June and July, \$3 each. After the 1st of August, \$2,50. All Queens sent by mail warranted pure and fertile. Safe arrival guaranteed.

Nucleus' Hives containing pure Queen, with 6 frames each, \$½ by \$½, \$3 each. Can be huilt up into strong swarms or nsod for wintering surplus Queens.

Full colonies in one story Langstroth Hives, ten frames each, \$13. Wide hives with movable partition board from 14 to 17 frames each, \$15, Two story hives containing 21 frames, \$15 oach. \$15 oaeh.

American Hives, containing 9 frames with space between top bars, \$15 each. Each colony will contain a young Queen and 9 frames of comb, with extra frames, Sent by express and safe arrival guaranteed. Address Itf J. SHAW & SON, Chatham Conter, or J. E. DANIELS, Lodi, Medina, Co., O.

A LSIKE CLOVER SEED.—A nice ur-ticle; 50 cents per pound by mail or 35 cents by express. A. I. ROOT & CO., Me-dina, Ohio.

TTALIAN BEES.—We offer for sale about 200 colonies of Italian Bees in the American Movable-Comb Hive. Also Queens throughout the season. Purity and safe arrival guaranteed. For further particulars, prices, &c., send for circular.

BALDWIN BROS., 2-9 Sandusky, N. Y.

CHOICE ITALIAN QUEES for 1873.

Italian Queens for the coming senson. The choicost Queen-Mothers to breed from, and no black bees to interfere. Send stamp for circular to W. J. DAVIS, Youngstown, Warren Co., Pa.



Or how to Realize the Most Money with the Smallest Expenditure of Capital and Labor in the Care of Bees, Rationally Considered.

PUBLISHED MONTHIAN.

VOL. 1. MEDINA, O., APRIL 1, 1873. No. 4.

## ARRANGEMENT OF THE APIARY

(We should add Designed and Engraved by "Novice," but "P. G." says it wasn't engraved for "he did it with a saw." P. S.—Saws are Novice's last hobby.)

#### STARTING AN APIARY,

No L

OW for business. In the above illustration which is drawn on a scale of one inch to twelve feet, the house is represented in the center, with the hives and grape-vino trellises arranged about it in the form of a hexagon, as given in our first paper, only that the above shows an appiary at a stage in which it contains only 56 colonies.

The building has a door three feet in

width, at each end, to facilitate as far as we can the operation of extracting, for the arrangement of the hives permits the greatest amount of room possible and at the same time allows us to take almost a beeline from any hive to either of the doors, and yet those most remote are but 24 feet distant.

Just as soon as this number is received we hope each one of you will provide anice clean load of fresh sawdust even if it costs \$2.00 as it does sometimes here in Medina.

Get the children to help (the more the

merrier,) and bring all the dust pans and fire shovels, earts, wheelbarrows, etc., and proceed to lay out the walks of our city; for we shall expect you to go around among your hives all kinds of weather, and without getting your feet muddy to be tracked indoors either.

If your supply of sawdust is limited and the stakes in the three different directions in which our lanes run. We sincerely hope that the wives, mothers and daughters of your household are partners in this enterprise, because they will assist so much, in keeping it neat and tidy, and when they once become interested in its growth and development, (for it may commeneo with only half a dozen hives, three, two or oven one only,) we are sure it will succeed.

Wo think it will pay to build a Bee or Honey house when you have a dozen colonies, and the rail road when that number is doubled. The building is 10 1x12 feet, outside measure, and as the walls are one foot thick, packed with sawdust, the inside is one foot less each way and eight feet from floor to eeiling. The floor is elevated ten inches from the ground and is also packed with sawdust and the building is supported on n good stone or brick wall laid with mor-

The whole of the timber used is 2x12 inch joists sided up on the outside and made tight (so that no sawdust can sift through into our honey,) by matched him-

her on the inside.

As with our hives, any lumber will auswer that contains no loose knots. Tight fitting, double doors are used, and the inner ones are so hinged that they can be slipped off and deposited in the loft out of the way in summer time when the building is used as a honey house; the outer doors should each have a window sash in them covered with wire cloth externally, and these sashes should be allowed also to slide down in hot weather, leaving the wire cloth to keep bees out; also have the doors arranged to fasten open as well as shut.

In the center of the floor an opening one foot square is made through both floors for ventilation, and also one of the same size in the ceiling above, reaching into the open air, but so arranged that no ray of light ean enter; both of these openings should be painted black inside, and the lower one should have a nicely fitting trap door which may be opened more or less according to the number of colonies the room contains, or the severity of the weather. For wintering, six shelves, each twenty inches broad, are placed at equal distances on oach side of the room, three inches from the wall; the hives are placed on these without top or bottom, and the frames covered with the cloth quilt only. The shelves are removable and are stored in the loft in summer except a purt of one of them on the south side, which is a fixture and contains shallow drawers.

Remember that neither the house nor

apinry is ever to be lumbered up with useless traps, even if they have to be burned up periodically, and so we make no provision for storing them.

The house as described is sufficiently large for storing one hundred colonles in winter, (if they are in the dollar hive,) and will admit of all necessary operations in summer, unless we should be so unfortunate as to get a barrel of honey from each colony, and even then it might be carted away every night.

Our railroad is simply a track made of pieces of seantling 2x3 inches with boards nailed across on the under side, and the car is a shallow dry goods box, bottom up, with a post nailed in each corner; these posts have mortises in their lower ends to slip over two axles of one inch round iron, having east iron truck wheels fastened sta-

tionarily to their outer ends.

The top of the ear is 2\frac{3}{2}x4 feet and raised enough to be level with the floor of the house; the other end of the track is such that the platform of the ear is about level with the bottom of a lumber wagon; thus, hives, honey, sugar, etc., may be quietly and speedily conveyed to or from the

building.

"Presiding Genius," says a collision is sure to result between the cur and and the hive near it, with the eurved track we have made in the drnwing, but as we cannot consent to mar the symmetry of our "honey comb" apiary by removing the hive a little, the whole thing has gone to press ns it is.

## ITALIAN QUEENS FOR TWENTY-FIVE CENTS,

IND readers, Novice hasn't gone wild or erazy, nor into a gift enterprise even (which, in our opinion, would be worse), but after having made it plain that the "dollur" hive was feasible, the fact that we must have Italians occurred to us, and also that many of us have in-vested much money, and, in some cases, with but little profit or satisfaction in return. We, too, have had our share of humiliating results in trying to Italianize, and must eonfess, therefore, that we have a preference for eggs for queen rearing directly from a genuine imported queeu. and have no doubt that bee-keepers in goueral feel the same way

On pages 209 and 210 of the National Bee Journal, Vol. II., we find that eggs can be sent safely by mail. Many thanks to friends Murphy and Marvin for the facts furnished; and now we want the assistance of all queen rearers having imported queens. We will advertise gratis the names of all responsible persons who will undertake to aid our friends, as fol-

"On the receipt of 25c. we will mail to any address a piece of comb containing freshly laid eggs from an imported Italian queen.

A piece of comb 21x3 inches should

contain from two to three hundred eggs, and this can be placed in a suitable frame of comb when received, and hive and all substituted for one containing a strong colony. When the eggs are hatched, if desired, the comb of larvae can be still further divided, and thus a large number of queens be reared and the risky process of "introduction" avoided entirely.

To those of our friends that furnish these eggs for hatching who fear "it won't pay," we will say: You have no trouble in queen rearing to contend with; by liberal feeding eggs can always be secured in the centre of the colony; postage is but two cents if the colony is fixed in a stiff pastehoard, bent up in such a manner that the postmaster can examine the contents if he wishes; and lastly, if eggs are from an imported queen, no guaranty of purity is needed, and for the small sum of 25c. none will be expected for safe delivery, etc.

Drone eggs can be at the proper season furnished at same price, if wanted, but our impression is that daughters of an imported queeu are as honey producers good enough. As to whom we shall patronize, our advice is that for both queens and eggs, as a general thing, it is hest to trade nearest home, and with some one we know will do as nearly right as he can.

We will assist in the enterprise all we can, and as we have uone nearer than an imported queen's daughter, we shall, if possible, procure an imported queen in time to mail eggs in May.

If we fail in this, those who send to us will have to take the hest eggs we can furnish.

#### PROBLEMS.

O. 8.—It is well known that market gardeners make use of sashes of glass to forward such vegetahles as they require very early. Now as it is rery desirable to induce brood-rearing largely this month, and as warmth is one great essential, can we not allow the sun to strike the quilt hy raising the cover partially, and at the same time keeping off cold air by a sheet of glass raised at an angle of 45 degrees, or laid over the quilt simply? Which would be the better way, and would not a quilt made of black cloth give us better results? A reply from some one who has had experience in market gardening would be quite a fayor.

No. 9.—How long can eggs be kept away from the bees and still hatch, and if temperature affects the result, what temperature is most favorable? [See article on another page.]

#### ANSWER TO PROBLEM 6.

The fact is that I am a devoted disciple of that great and good man and eminent naturalist, the late Izaak Walton, and I long ago discovered that for all kinds and descriptions of fish that will take a grab or fly, from the tront and black bass

down to the river and pond sunfish, the larvae of the bee moth is just about the most attractive bait that can be used. It is a very cleanly hait, and has a strong odor of its own, as of course you know, which I suppose is one of its advantages. I believe that nothing was made in vain, everything has its use if we could only find it out, but I never heard of any our being able to put the bee moth (no pun intended here) in harness, or derive any henefit from it, until I tried it myself. I have, of course, noted some of their habits, such as their propogating in confinement, the diseases to which they are subjeet, and that combs hong in the open air, that is, not in a hive, at a distance of 1 or 11 inches apart, are almost secure from their depredations. In this case the moth will sometimes attack one, and if the worms caunot reach the next one they will confine themselves to the one on which the egg was laid until they are done feeding, when they will begin to travel, &c.

#### ANSWER TO PHOBLEM 7.

Do you think there is any objection to using tanbark around the hives? I have always used it and find it very good to keep weeds down, and it will not catch fire very easy.

C. E. W.

It is our impression that the above will answer excellently, but what are unfortunates like ourselves to do that can't get any, nearer than ten miles?

#### HONEY COLUMN.

HAVE a 12 gallon cask of dark extracted honey (mostly hnekwheat), that I will sell at 12½c. with eask thrown in. A neighbor has a same sized cask of white honey (elover and basswood) that he will sell cheap, and also 80 pounds of dark honey.

J. F. Moore,
Binghamton, N. V.

I have but little extracted honey on hand now, but would like to engage my next erop. I shall have, if prospered as usual, about 3000 lbs., which I will deliver free of cost on the ears or steamboat, at Museatine, Iowa, in 150 or 200 pound oak kegs, at 15c. per pound, kegs thrown in. The honey I guarantee all to be a No. I article. I have been selling extracted honey for four years, and know what it should be.

W. J. Roxato, Grandview, Iowa.

We have never seen a case of foul brood and consequently can't advise in the matter; but we do recommend that as a precaution the utmost care be exercised in shipping queens or eggs from an apiary where it prevails or has prevailed. Perhaps the matter when we become familiar with it can be shorn of some of its terrors, like moth millers, etc.

## NOVICE'S Cleanings in Hec Gulture.

#### A. I. ROOT & CO.,

EDITORS AND PROPRIETORS.

## Published Monthly, at Medina, Ohio.

Terms: 75c. per Ammun. Anyone sending us 5 Subscribers can relain 75c, for their trouble, and in the same proportion for a larger number.

#### PRINTED AT MEDINA COUNTY GAZETTE OFFICE.

## Medina, April 1, 1873.

Alt money sent us without specifying definitely for what purpose, will be credited on "Gleanings," and the paper will be sent just so long as it is paid for and no longer. We hope our friends will excuse us for making this our invariable rule to all.

In case the locality of any hive is to be changed after the bees are flying in the spring, do it by moving, not to exceed one foot at a time. If moved otherwise, unless the distance exceed one mile, the colony is frequently injured for the season.

The different No's, of "Gleanings" are so intimately connected and follow each other in such a manner, that we hope our friends will excuse us for insisting on having all subscriptions commence with the first of each year. Of course we shall always be prepared to furnish back numbers.

Wi: have received from Dr. Jewel Davis, of Charlestown, Ill., a queen nursery, and judging from what experience we have had with a simular one of our own make, we think it without doubt quite valuable in an apiary. As he now offers them for four dollars, right included, we cannot call the price unreasonable. The lifteen movable queen enges contained in one frame are nearly worth the price alone, but we are somewhat doubtful as to the expediency of keeping your queens in confinement very long after they have been hatched. We want the most prolitic and longest lived queens that can be had, and if unrestrained liberty of the hive and "all out doors" too, is one of the essentials, "let 'em slide" by all means. Will some of our large queen ruisers give us their opinion on the subject,

Some one suggests that we make "Gleanings" a "Weekly" which we might easily do if we should publish all the expressions of approval that we receive in regard to its value thus far; but as we expect you to receive more money from your bees than you expend, we have serious doubts as to whether a weekly would be prudent. Success is only achieved by hard work, and books are only to assist you in directing your work. Doubtless the money can be better invested somewhere in the Apiary.

Ir seems we have been so unfortunate in making ourselves understood, that several have written as asking the price of "individual rights" for the privilege of using the metal corners, which is quite a joke on Novice, certainly. Of course every one is free to use them if they wish, and so far as we are concerned, to make them or any modification of them they please for their own use. We only reserve the privilege of manufacturing them for sale as all valuable patented articles are sold, and as they are famished at a price but very little in advance of the cost of making, we presume no one will accuse us of charging an extra price for them because they are patented.

From the March number of Bec Keepcr's Magazine we infer that Mr. King has at length given up selling "rights" or trying to sell them. If this is the case we presume the lesser "patent hive men" the world over will also drop the business, and accordingly "my hive" and the "deed of individual right to make and use" has all gone down, too, as it could not help doing when the world became enlightened. Factories for making desirable hives at a price below what they can be made at home, will be an excellent thing, and there can be no objection to having them patented, providing they are sold to any one or to go any where at one common price. "Novice" commenced to ask all bee keepers of America to swing their hats and give three runsing cheers for freedom from the thralldom of "patent layes," when it occurred to him that no intelligent bee keeper would use any of the patented hives that have been paraded over our country, were they now laid as his feet as a free gift, (always excepting the "movable frame" feature,) so he stands hat in hand and "don't swing it nor cheer either." We may be in error for Mr. King talks about "trade marks," but the result is inevitable in the end.

#### HEADS OF GRAIN FROM DIFFER-ENT FIELDS.

THESE WILL BE NUMBERUD BURGAFTER TO FACILITATE REFERENCE.

O. 42.—Please let us know something about shipping bees; how far could they be sent, probable cost, etc.
R. S. BECKTLL, Madison, Wis.

We believe that bees can be shipped almost any distance, but do not think it advisable to undertake very long shipments when it can be avoided. As they must be sent by express, it is necessarily quite expensive; perhaps \$2.00 or \$2.50 would be the charge on a hive of bees from New York to Chicago, as an illustration. As a general rule we think it best to trade as near home as may be, either in hives, bees, queens or extractors, nuless it may be for a choice imported queen, or for samples of implements; and some good mechanic in every neighbor-

hood should make it his business to fur-

nish hives, extractors, etc., unputented,

and thus save expensive freight bills and

also allow the nurchaser to examine his

goods before buying.

No. 43.—Same five or six years aga I read with much interest in the American Bee Journal the account of the astonishing yield of over 300 pounds of honey from one swarm of bees in one season. At that time I had but small experience in bee cultivation, and although my theories and enthusiasm had led me to expect liberal proceeds, still that amount quite came up to my most sanguine hopes. being, as I think, in as good a location, and also for want of time to give the attention required. I have never, as yet, gone over about 200 pounds. But I think f could, with proper attention in a good location, go as high as "any other body. Year before last I obtained 2200 bhs. from about 40 hives. Last season was not near as good, and besides my bees came ont in the spring in very bad order; so I said I would never earry my bees into the cellar again. So I have been trying the experiment of out-door wintering, without protection, and two days ago I became so fearful that all would be dead before spring that I harried what were alive into the cellar again, making up my mind decidedly that in this climate, out-door without protection is very unsafe.

S. L. RICHARDSON Webster City, Iowa, Jan. 24, 1873.

We have been obliged to come to the same conclusion with Mr. R. in regard to out-door wintering.

No. 44.—I can tired of buying rights. Have you borage seed and the Rocky Manutain bee plant? Who isn't tired of "rights?" There's plenty of borage at the seed stores. We don't know about the other.

No. 45.—Your advocation of the exclusive use of the extractor, I must acknowledge to a non-conviction of its profits. I was offered last summer, in Chicago, 5c. per 1b. That is the reason I run most of my bees last summer for lox honey.

FRED'K CRATHOUNE, Bethlehem, Iowa, See pages 5, 23 and 24 of "Gleanings,"

and the following:

No. 46. -Don't you think you can afford to turn some of your surplus energy towards the production of box honey? We think, in view of the slow sale of extracted honey especially in our Eastern markets, that some of the beckeeping geniuses should turn their attention to producing box honey, so as to simplify it, and make it more certain. It is easy to learn to raise bees, increase stock, and extract the honey; it is only a matter of nuremitting labor, of persevering industry, and don't require a very great amount of hard work. In fact, we think you will be a Novice until you can get so you can put any good stock of bees into boxes and keep them there through the season, and have them store the majority of their surplus in comb, without attempting to swarm, and without a very great amount of troub-That is the problem, and when you get so you can do that, you will begin to understand the science of bee-keeping. Not but what you have done much already (for we have much to thank you for,) but we would very much like you to try and do as much for the box honey producers as you have already done for the produeers of extracted honey for this reason: There is a class of consumers (and they are the class who buy the most of the houey, especially in these Eastern cities,) who will have comb honey, at whatever price. Take the New York quotations, for instance. While box honey is quoted ut from 32 to 35 ets., the highest quatation for extracted is 15 ets. Extracted is offered in a great many places in this city, but it is a drug. There is scarcely any sale for it, because the market is supplied with comb honey. A great many enstomers buy comb honey purely for its looks, be-cause it sets out a table, and would not buy it for any other purpose; and then they claim that the flavor is superior, which we think you must admit. It is very true that when it is first extracted it has a peculiar fresh flavor; but it is always extracted at a time of year when there is no sale. Eastern dealers don't deal in extracted honey until about November; then your extracted honey soon begins to caudy and lose its fresh flavor, and sales stop. Now we claim (although we have no statistics to go by, and don't know as there are any statistics that can be got at,) that nine-tenths of all the honey produced in the United States and sold for tahle use, is comb honey. If we are wrong. please correct us. We think (notwithstanding that the extractor is a great invention) that the majority of the honey will be sold in the comb for a great many years to come. Hoping you will excuse this long communication, and will think the matter over favorably, I remain as ever your friend,

J. P. Moore,
Binghamton, N. Y.

A perusal of the above leaves us just about in the condition we were the first time we ever attempted to speak at a debating society, viz: we could only think of one idea, and some one who pitied us called it a heavy one, as we hope the following one is: Get thin white-wood vencer and make frames by folding up strips about 11 or 12 inch wide; these frames to be of such size that four or six would fill a large frame. When these are filled with boney and sealed up they can be removed and sold singly or in boxes. As the frames can be made for 1 cent each or less, they can be sold honey and all. The vencer can be purchased very cheaply.

No. 47.—Does Mellilot clover blossom the season it is sown? Is Sweet Mignonette a good honey producer, and can it be profitably raised by the acre—that is, will it pay? To make bee-keeping pay any and every year, it needs other flowers than white or alsike clover or basswood. There is hardly a year that all blossoms yield honey, and to have only clover and basswood for honey producing is like some of the Southern States planting only cotton to make money from. We need more honey producing plants, and if there are any that will pay to cultivate it will be a step forward, &c., &e. I think you must see what I am after. Can anything be done? Can the seed of Sweet Mignonette be had in sufficient quantity to plant an acre?

J. L. Thomson,
Big Tree Corners, N. Y.

Mellilot does not blossom until second season, and with us, bees pay but little attention to it. We find it one of the worst weeds to "dig up" it has ever been our fortune to encounter, and cannot see that it differs materially from common sweet clover .. B. H. Stair & Co., 115 Ontario st., Cleveland, O., ean furnish any quantitp of Mignonette seed, but we must think such experiments risky, for nothing short of acres of any plant would give a definite result. If we select some plant that will pay otherwise than as a honey plant, we can go to work much more salely. For instance, large yields of honey are obtained in Germany from the rape fields: in some cases the honey has been known to run out of the hives in the evening, so

great is the yield. We give below a letter from Messrs. Stair & Co., rec'd Feb. 20th:

"We have heard summer rape very favorably spoken of as a honey plant. We wish you would agitate that subject in "Gleanings," and if it is worth while we will give you modes of culture. We will also buy the seed product up to 40 or 50 bn. if any one wishes to try it."

If a sufficient number care for the matter, we will give the further particulars in our uext.

No. 48.—I have received nearly four thousand lbs. box honey, and five or six hundred lbs liquid honey from seventy-two stocks, with which I commenced last spring; besides increasing my stock to one hundred and twenty, an increase of forty-eight. I expect to realize thirty-five cents per pound for box honey above expenses of shipping, commission, &c. It is being sold now in the New York market at forty cents per pound, wholesale. I am very sorry you have no better success in getting box honey, usually I get about one-hulf as much weight with boxes as with the extractor; and box honey is worth about twice as much as the extracted. This year I have done better than this, getting nearly as much cap honey as extracted.

James E. Chare, Bridgeport, Vt.

Our friend certainly should be satisfied with the prosperity of his apiary, and his last item seems to favor Gen. Adair's position, viz: "That it is possible for them to build comb to contain the honey as first as it is stored, when every thing is most favorable for such results." Our experience has been quite different, for we have many times observed that the amount of honey taken with the extractor is seldom anything near what might have been obtained had it been used always us soon as the bees had filled (and partly scaled) their combs, and before they began to contemplate swarming. However give us the facts on both sides by all means.

No. 49.—Mr. Davis is rather usummed that he cannot make a better report of swarms and suplus honey. But the fact is Mr. Davis was taken by surprise. He had calculated the fire had bearly destroyed his apiarian prospects by burning out by the roots every tree and bush in this lurge swamp, some 1200 acres; and was not prepared for such wholesale swarming commencing in May and lasting until September. Several went off, for which I was thankful, for I had my hay and grain to take care of, and they came too thick and fast,—seven or eight in a day and no hives made you see. Old refuse combs that set leaning against the hives would be filled, all the boxes that I could get a chance to put on and some of the cups were filled; some of them built comb in

the portice, filling with honey as they went along right out into the "cold world." After all the old hives, boxes, and hollow logs were filled, I drove down four stakes, nailed on a couple of strips and hung on some frames; then I put 3 or 4 swarms that went together on the frames; in the fall we had a barrel of honey and comb. About the middle of September the bees quit business, but I expect they are getting ready to try the thing over again. The plant is called here cockle, and grew six feet high in some places and covering the entire swamp, the bees worked on it all day. My bees had about 7000 lbs. of honey in their hives and not more than 500 in boxes. J. L. Dayis, Deini, Brein. P. S. We got considerable slung honey

but kept no account of it.

We don't know how much Mr. Davis' "hay and grain" were worth, but it strikes us we should have let it "slid," "enuse we hadn't time to 'tend it," but we should have taken eare of the honey and then bought the "hay and grain" of some one that didn't know any better than to waste their time raising it. Two years ingo we received over \$1000 eash for our honey and a neighbor who had an equal unmber of stocks and an extractor too, received less than \$100. When asked why he had no more he replied his farm kept him so busy that he could not take care of his bees; and yet his whole product of the farm for the year was worth less than half the value of the honey he allowed to waste, and such cases are common.

No. 50.—Haw do you prevent a queen from laying too many drone eggs, and is there such a thing as a good fumigator.

1. J. Kennedy, Castalia Springs, Tenn. Cut out all drone comband fit it in a frame by itself for use in the upper story: now to prevent more drone comb from being built, fill the vacancy with worker comb and keep none but worker combs in the brood apartment. We have tried fumigators, tobacco, pans of sawdust, rolls of rags, etc., etc., but we find a chank of hard, rotten wood and a coal of fire from the kitchen stove more effectual and less trouble than anything else. Provide a sheet iron box in some convenient place. to keep it in; this will shelter it from rain, and if you are careless in not putting all the fire out no damage will be done.

No. 31.—Please hang crape on the knob of your bee house door in respect to swurms of your correspondents bees which have "gone up," "gin out" or "friz." Also tell your photographer to get ready to take a nieture of the longest faced bee keeper, or rather bee looser in Medina

county, (them's me). It is not strange that they died as the thermometor varied 44° in 24 hours; going as low as 19° below zero. O, for a bee house.

SETH LUCAS, Remson Corners, O.

But friend L. bee houses don't always save them either, though we think them a very important item in the business. We shall be very happy to include you, as we want "all sides to the picture" when we have our spiary photographed next June.

No. 52,-Dear Novice:-As you have about quit making blunders, I didn't know but you might pay a premium on a few first class ones, so I send you one of mine, for I am quite ingenious in that direction. Last summer I had quite a number of empty combs and as I was obliged to leave home the last of July for a long time, I thought I would leave them where the bees would protect them from the bee moth. So I put a second story on all my hives and filled up with empty combs. When I examined them in the fall those which were strong had stored some surplus, but those which were weak, some of them being the latest swarms made, had the second story a solid mass of cocoons and webs. Two or three hives full of empty comb, that had no protection, but stood in the sun with the entrance open to the moth, were not disturbed at all. Moral.—To destroy combs, protect them weakly by bees. In one of the above cases I placed a second story on a hive, with nn inch board having a two inch auger hole through it between the two stories. In the fall I found the lower story filled with honey and the brood nest and bees in the upper; which hardly goes to show that the queen prefers to keep the brood below in all cases.

C. C. MILLER, Marengo, Ill. We are really afraid friend M. wasted his time worse than Mr. Davis did in taking care of his hay and grain,

No. 53.—We are all very much pleased with your "Gleanings," and feel that they are to "turn over a new leaf" in bee culture: by which the business will be simplified, popularized and made interesting, fashionable and profitable; besides being much sweeter than ever. I hope you may be able to interest the ladies generally in the pursuit; in order to call them more out of doors, and make them more interesting and healthy. It would do very much in the way of abolishing long doctor bills. J. II. SALISBURY, M. D., Cleveland, O.

As the above comes from one of the first physicians of the present age, we feel considerably encouraged thereby, Besides being able to contribute to the work of opening up a new branch of industry. the fact that we can also aid in clevating the standard health of our American

women will be an additional stimulus. When a physician tells us that the necessity of long "doctors bifls" may be avoided, we begin to have faith.

No. 51 .- We went into winter with nineteen stocks, most of which had stores sufficient to carry them through the winter, but mostly weak in numbers. I united a few of the weakest. That was late in the falt. Not thinking anything serious would happen, I gave them but little uttention until near Christmas. Upon examination I found four stocks dead. The bees looked as though water had been poured on them. Their combs were badly soiled and very damp. . What was the cause of their death I cannot tell. It was not for the want of stores, for they had honey sufficient, and they had not been confined to the five more than two weeks. Some had ventilation and others none. Alf fared alike in that particular. But we pass to the next cold spell and the same happens to others, until I have but nine left, and many of my neighbors have fared the same way. Now, the latter part of last season was the poorest that I have ever known in this country. The bees worked almost exclusively on fruit during the latter part of summer and fall. ing the latter part of summer and fall. It is said by old bee-keepers in this section that when fruit is plenty bees winter badly. I believe that their appetite for it proves their destruction, of which any one can satisfy themselves by going to an orehard when bees are working on fruit late in the fall. When the evenings are eool great numbers of them may be seen so heavily loaded that they cannot fly. But do they store eider for winter? and if so, what effect does it have on the bees?

11. Pedex, Mitchellville, Tenn.

Opinions conflict in regard to the effeet fruit and eider mills have on bees in this locality. Lust fall our bees worked strongly to and from a cider mill within an eighth of a mile, and stored some beautiful clear honey that tasted like apple molasses. This they gathered so late that we found it almost impossible to keep them from adding it to their winter stores of syrup, and many of our colonies show symptoms of dysentery now. Those that were deprived entirely of their combs and a new set given them instead, filled and sealed by other colonies kept constantly employed in that way, are in as perfect order in every respect as we could wish. We now have great hopes that sugar candy will answer all purposes of scaled syrup, and will also be the most convenient way in which we can give them an unlimited supply. See Problem

WE have before us three numbers of Apiculturist, published by G. W. Church, Mexico, Mo. The first is headed Vol. 1. No. 2, April, 1870; the second, Vol. 2. No. 1, July, 1870, and the third came to hand the last of February of the present year, dated Jan., 1873, Vol. four, No. 1. As typographical errors are "quite plenty" all through Apiculturist, perhaps the above is only that, and not the intenthe above is only that, and not the intention of making it appear something more than it really is. We do hope the custom of "sniling under false colors," so common with "bee hive men" may not be adopted in Bee Journals. When the disposition is seen, whether in "Gleanings" or elsewhere; we hope it may be shown up at once and without mercy. Whenever it can be shown that Apiculturist is really in its fourth volume we turist is really in its fourth volume we shall be most happy to so announce it. Terms \$1.00 per year.

#### ADVERTISEMENTS.

Advertisements will be roceived at 10 cents per line each insertion, cash in advance; and we require that every Advortiser satisfies us of his responsibility and intention to do all that he agrees, and that his goods are roally worth the price asked for them.

WANTED.—300 hives of bees to be used as nurses in rearing Italian Queens, Address, R. WILKIN. Address, Cadiz, Harrison county, Ohio.

PRICE LIST OF PURE ITALIAN Queens and Bees from Shaw & Daniel's Apiaries, for 1873:

Apiaries, for 1873:
For last yoar's Queens, sent as early as the weather is suitable, \$5 oneh.
Tosted Queens, during the season, \$4 oach.
Untested Queens in June and July, \$3 each. After the 1st of August, \$2.50. All Queens sent by mail warrunted pure and fortile. Safe arrival guaranteed.
Nucleus' Hives containing pure Queen, with 6 frames oneh, \$½ by \$½, \$8 each. Can be built up into strong swarms or used for wintering surplus Queens.
Full colenies in one story Langstroth lives, ten frames each, \$13. Wide hives with movable partition board from 14 to 17 frames each, \$15, Twe story hives containing 21 frames, \$15 oach.

American Hives, containing 9 frames with space between top bars, \$15 each. Each colony wilt contain a young Queeu and 9 frames of comb, with extra frames. Sent by express and safe arrival guaranteed.

Address J.SHAW & SON, Chatham Center, or J. E. DANIELS, Lodi, Medina, Co., O.

A LISTKE CLOVER SEED.—A nice article; 50 cents per pound by mail or 35 cents by express. A. I. ROOT & CO., Mcdina, Ohio.

TALIAN BEES.—We offer for sale about 200 colonies of Italian Bees in the American Movable-Comb Itive. Also Queens throughout the season. Purity and safe arrival gunvanteed. For further particulars, prices, &c., send for circular.

2-9 Bandusky, N. Y.

CHOICE FTALIAN QUEES for 1873.

Inlian Queens for the coming sonson. The choicest Queen-Mothers to breed from, and no black bees to interfere. Send stamp for circular to W. J. DAVIS, Youngstown, Warren Co., Pa.



Or how to Realize the Most Money with the Smallest Expenditure of Capital and Labor in the Care of Bees, Rationally Considered.

#### PUBLISHED MONTHLY.

Vol. I.

MEDINA, O., MAY 1, 1873.

No. 5.

#### STARTING AN APIARY.

No. 5.

to the following, simply because they have always been taught differently, for we assure them that all we here recommend we have carefully tested.

The cutranees to all the lives, in our plan of apiary, should front either east or west, and for several reasons we prefer the former: also, as we wish to avoid all unnecessary complication and simply aim to derive the "most money with least ontlay, labor," e.e., we will discard numbering, and treat all hives precisely alike, and make them all as nearly alike as possible. In short, our aim should be to make each hive constitute such a part of the whole Apiary as each individual hee does part of the whole colony of bees.

Now, the true test of skill in an apiarist is the ability fo make an apairy of a considerable number of hives yield an average of a fair amount of honey per colony; the simple fact that one hive gave two or even three hundred pounds, proves but little, for many others may have given little or none, and the general average may not have exceeded 25 lbs.

As a colony will labor as well on any other set of combs and brood as their own, we will, when we commence extracting, remove the entire set of combs of each hive forward to the one next it at each operation, thus facilitating our work and equalizing our colonies, at the same time. Of course to do this all combs must be perfectly any where; if they do not, they must be made to, at once, as well as hives, covers, and everything else. In transfering (and this is the mouth for it with most of our readers.) take our comb each from several hives for the transferred bees to cluster on, and as soon as a frame is filled with comb give this to a hive from which one comb was taken, and we have very little danger of combs tumbling down, for the transferred combs are distributed about, one in each hire; and the transferred bees have all good combs and accordingly are strong, and an old colony at once. In all operations we are to bear in mind as above, that no one colony is to be called upon to furnish bees, brood, or combs, alone, but that all, or many, are to each bear a share of the work. Swarming is not to be allowed at all, but if increase is desired, at least ten colonies are to build a comb cach: others are to furnish bees, and still others, a queen. Young bees that cannot fly must have employment besides earing for the brood when hives are populous, we therefore make it a rule that each colony has at least one frame unfilled with comb whenever honey is being gathered, as well as emply comb at all times.

The great facility offered for moving the combs about, in the hive we have advised, is very apt to induce "putting an empty comb between two broad combs. being over done, especially quite carly in the season, and we would caution our readers against spreading the cluster of hees and brood in this way too far, or they may get a severe check in broodrearing from nuseasonable weather; but judicious spreading of the combs may be so done as to oblige the queen to fill nearly a whole comb entirely with eggs, and as these eggs hatch nearly at the same time. the nursing bees can feed and attend to them systematically, without skipping about as they usually do for brood that needs care. Scaling over and hatching-out also occur on the "one job" system, the cells are ready for eggs once more which can be laid by the queen as methodically as we would plant a field of corn. When a hive has once got into the way of raising brood in this majorer it will probably continue thus the whole sen-son, and the "golden showers" of young bees that such a "mathematically dis-posed" queen can send to the fields for "loads," are tridy astonishing.

In our last we omitted to state that our bee house should be so arranged that a surplus of sawdist kept in the loft could be at any time pushed over between the upright joists to fill up the space caused by the settling which occurs as it dries out; also, a small door over one of the large ones gives access to the loft by means of a light ladder .- P. S .- Don't leave the ladder up Saturday nights for the children might climb up and play in the sawdust on the Sabhath.

"But, Mr. Novice, you haven t considered box-honey at all, yet."
"Why, yes we have; see Jan. No. page 5. When we get our hives full of broad and young bees we are just right to put them into the hives double width and put

on boxes, etc.,

"But how will you prevent swarming? Our bees always swarm, or generally do when their combs are filled, in spite of boxes, and in an apiary of 50 or 100 stocks clipping the queen's wings does not prevent her bees from joining in with some other swarm. You have also said that such arrangements as Quinby' queen-yard and Mrs. Farnham's non-swarmer would not prevent the bees from killing their queen when retained in that way.

"You are right, and we cannot think it good policy to use any means to restrain swarming that is apt to induce the bees to replace their queen. If our hives are worked for box honey, for aught we can see natural swarming must be allowed, and to be frank, we have as little patience with one operation as the other, for both seem to us too disorderly and wasteful to be tolcrated in a well conducted apary.

Kind readers all, our opinion in regard to the value of the Extractor may be a mistaken one, but it is honest, neverthe-less. Should we presume to teach the method of securing the largest amount of box honey with least labor and expense, as we now do extracted, we should be atcempting that in which we have, of late years, had but little practical experience, and so we hope to be excused; but we shall watch for and welcome anything new that may come up, and try to keep our readers posted on the subject. That extracted honey (with the market we have now for it) can be made to pay, even poor seasons, we haven't a doubt, and trust that the same may be true of box honey.

#### CAN OUR BEES BE IMPROVED?

E think that any caudid, reasoning individual will be perfectly satisfied that our Italian, Egyptian and native bees have descended from a common parentage, by reading an article in the Popular Science Monthly for May, 1872, entitled: "The Unity of the Human Species." Any bre-keeper who has any doubts on the subject, will find it profitable to send to D. Appleton & Co., 549 Broadway, for the number in question, and we shall assume, in all our future writings, that the Italians are only distant relatives of our common bees, having accidentally acquired valuable qualities while closed in from the rest

of their family by the encircling moun-

The three yellow bands, then, are only an indication of the branch from which they came, and for superior honey gatherers it is much more important that we select colonies to rear queens from, that have desirable qualities practically considered, than that they have three or more yellow bands, or, in fact, that they have yellow bands at all; only that, at present, our best honcy gatherers are yellow band-

We will give a few facts to illustrate this. and we presume almost all intelligent and observing bee-keepers can give as many

similar ones.

About three years ago we had a fine colony of cross hybrids that persisted in building little bits of comb at right angles to the main comb, and by no manner of means could we care them of it. If they built a new comb, it was sure to be abundantly interspersed with these "fins." and on giving them a complete set of the finest comb we had, placed as near as they could be used, we found them in three days all "edgewise" again, and all we could do was to pinch off these extras every time the comb was "extracted." The next season, in that hive and no other, we found the same peculiarity, but as they were strong and industrious, we rather liked to study their idiosyncracy.

In June their queen was lost carelessly. and another substituted immediately; and strange to say, when the new workers emerged, we had sensible comb builders once

more, and have had since.

Does any one doubt but that queens raised from this queen might, some of them, have shown the same trait, and that constant encouragement might have developed, in a brief time, a race of bees all having that trait developed in such direction as we chose to encourage?

Again, most bees, when shaken in front of the hive, crawl directly in; yet we have had two colonies that always persisted in crawling into some other place; and one of them was a "perfect bother" for a whole season, until she crawled off with a few followers and "lost herself."

When the young bees hatched from a succeeding queen in the same hive, they showed no such disposition, and as the former were dark hybrids and the latter yellow, we had the spectacle of the dark old bees crawling away, and the young yellow ones going home as "honest bees should do.'

We presume Mr. Darwin would say, in both cases we have mentioned, that these sports would cure themselves unless man steps in and encourages them, for the bad comb-builders would die in bad seasons in consequence of poor economy in the use of their wax, and the "perambulating queens, when the extractor is used, would ottenest get lost.

Now, tellow bee-keepers, do we not sometimes play the "mischief' by saving queens that would die naturally, and thus frustrate the order of nature by letting or cousing some other to survive than the strongest? In selecting our queens to rear from, do we nlways think what desirable qualities we wish to perpetuate? We don't care for light-colored bees, unless we are sure other qualities always follow. The queen that raised our lightest and most beautiful bees was one of the poorest we ever had, and her daughter, raised from her in her third season, was almost as bad. The full banded, rather dark bees have given us most honey, and during poor seasons, like our last, those we felt sure were full-blood Italians were far ahead of hybrids.

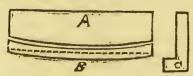
Who has not noticed that swarms from certain hives are almost sure to go off,

and others the reverse?

We think it possible, even in our brief day, to rear bees that are not disposed to swarm (like non-sitters among poultry, for instance); nor to sting; nor to build erooked combs; nor to ernwl all over their hive or outside of it when handled; nor to get lost or do anything else undesirable; but, on the contrary, to be neat and rapid comb-bnilders, energetic nurses, expeditions and indefintigable honey gathererers, but not robbers, and perfectly willing to give up all their honey in the fall, and take enough sugar syrup out of a "teakettle feeder" in n couple of honrs (or more) to last them all winter, so they won't have the dys-en-tery.

#### MARING FRAMES.

S good frames will last a lifetime it will certainly pay to take some pains in making them, and as we handle them many times each season, ever onnee of useless wood or metals should be dispensed with. Whether they are put together with nails or otherwise, if the top bar exceeds one foot in length we should make them tapering so as to give the grentest strength in the middle where it is needed. For our frames we get out strips from lumber 182 inches long by 9-16 in width, and these when sawed from each end until the saw cuts met in the middle gave us the proper tuper, and the pieces that came off were right for the ends of the frame. We now do it much neater and quicker by sawing completely through at onee; thus:



Let A represent a piece of board 18½ inches long by 3½, broad at each end, and 3½ at the middle; if our strip B is held firmly against this and the straight side of A placed against the saw guago so so that the path of the saw is along the dotted line, we shall have the desired

shape. To hold B in the curved position while being sawed, we nail fast to A near each end a piece like C, the broad end of course hooking over B to keep it tight up to A. A small block will also be needed nailed ngainst the end of A to keep the strips from slipping back and another small strip nailed across the middle of A with a sharp metal point projecting in to B just sufficiently to keep it from crowding the saw, completes the arrangement. We need hardly add that the top of the buzz saw table should he clevated so far that the saw just reaches through our stuff, to prevent sawing off our clamps C. The space between A and projections on C should just allow our strips to go in easily.

#### EGGS FOR HATCHING.

AM nfraid your "25 ets. queens" will ruin the trnde. Don't you think you have the thing to too fine a point? I for one am willing to try it, but if I find it will not pay, reserve the priviledge of stopping at any time. For 50 cents I would agree to put the comb in a wooden box so there would be but very little danger but what it would carry safely; would also be willing to notify customers ou what day I would send it. I have a queen now, received in October last, of the "Tupper Dadant" importation.

T. G. McGaw, Lock Box 64, Monmouth, Warren Co., Ill., May 1, '73.

We have in prior years sent eggs by mail, and hereby inform you that we cheerfully concede to your proposition: "To send a piece of comb with pure eggs for 25 cents." From experience we have found that n paper box, of suitable size, the cover held on with a rubber string, so the contents may be examined, is by far the best way; to ship to places where the mail is to be carried on horse-back we use a tin box.

As a partial answer to problem 9, 1 give you the following: "In June 72, we sent a piece of comb 2x3 inches to Deer Lodge, Montana Territory, for J. McDongall, (who is now breeding queens for us), from which he raised 5 queens; the comb was 6½ days in transit, and passed through territory having a temperature of from 40 to 90 degrees.

E. KRETCHMER & Co.," Conurg, Montgomery Co., Iowa, Apr. 7, '73

As for ourselves we have as yet been unable to obtain an imported queen, but hope to receive one in time for business.

ANOTHER STRAW.—For lady bee keepers; rubber cords or bands slipped over the drawers at the ankles, and sleeves at the wrists, are a very good protection:

0, NOWHERE, ...

## NOVICE'S Cleanings in Bee Gulture.

#### A. I. ROOT & CO.,

EDITORS AND PROPRIETORS.

## Published Monthly, at Medina, Ohio.

Terms: 75c. per Annun.
Any one sending us 5 Subscribers can retain loc. for their trouble, and in the same proportion for a larger number.

#### (PRINTED AT MEDINA COUNTY GAZETTE OFFICE.)

### Medina, May 1, 1873.

We call attention to the advertisement of Annals of Bee Culture in this number. While we can unhesitatingly recommend Annals, we are compelled to say the theory advocated in "Progressive Bee Culture" seems to us erroneous, but hope all bee keepers who care to, will indge of the matter themselves. Gen. Adair may be right and we wrong.

The North American Bee Journal for April contains some quite valuable articles on wintering. The fact of our being noticed in terms not flattering in the same number, does not hinder us from recognizing its value in general matters. If it will belp our friends to read us understandingly, we will add that it was subscribers to King's Journal who supposed they were taking the American Bee Journal. If similarity of names makes no confusion elsewhere, we will drop the subject.

We are making arrangements to have some photographs of our apiary taken next month, or as soon as the grape vines are fully leaved out. They will be \$x10 size, and will cost us at the rate of \$25,00 per hundred, and will be mailed to such of our friends as wish them for 30 cents each: also we will mail a copy to any one sending as \$1.50 for two subscribers. Those who have sent us 75 cents will therefore only need to send us one new subscriber; and those who have sent us two, if they will advise us of the fact, will receive the photograph as soon as out. Of course the same name can be counted but once, and only those can be counted from whom we have received the full 75 cents. They may not possess any great amount of beauty, but we trust they will aid in explaining the arrangement of our apiary and appliances.

With the amount of testimony on hand in favor of sugar syrup for winter stores, we think we are excusable in considering the matter settled, at least for the present. It now only remains for us to consider how we can with the least trouble give our colonies enough scaled up in their combs to last them through the winter months. We should also be quite thankful for any facts from those who have tried candy or "loaf sugar." Mr. Quinby suggests the latter and has made some experiments with it. How can coffee sugar be made as hard and firm at small expense?

Snown, after our article in the March number, wherein we mentioned the perfeet capabilities of our wind mill to withstand storms, a small hurricane twisted the vane off, and then very quickly demolished the entire wood work of the sails. Examination showed that the shaft of the vane close up to the casting was a poor, cross grained piece of timber, and the only wonder was that it stood so long. Had the vane held its place the mill would have been safe against any blow that ordinary buildings withstand. One bad piece of material put in carelessly, occasioned the whole damage, which stopped "bee hives" for about four days and cost us over \$50.00,

Moral. In buying or constructing a wind mill, insist on having the rane, most especially, strong and secure.

In our own apiary we have lost 13 colonies out of 71. With the exception of perhaps two out of the thirteen, we have no difficulty in deciding where the trouble lay, and how the loss might have been avoided. Reports from all points seem to show that more bees were lost in the last part of February and March, than in the previous winter months, and in many cases after they had been enabled to fly out. We are anxious for all the facts we can get, but shall be obliged to drop the subject now until another winter approaches. Although some report decidedly in favor of ont-door wintering, by far the greater part of the testimony would indicate frost. proof repositories the safest. Please give us your plans and opinions all; if we cannot publish them, 'twill aid us much in deciding what to advise in future.

THERE seems to be quite an error prevalent in regard to the "dollar" hive. It is the plan of making the case to hold the frames, only, wherein it differs from other hives, and the same idea will answer for a case to hold frames for American hive, Gallup hive, Quinley live or any other hive so far as we know, and one story, or rather a case sufficient to hold the number of combs required for the brood and for wintering, can be made for \$1.00; no matter what size or form of frame be used, and two of them will be needed for surplus. If frames be preterred spread out horizontally make hime of double width (see Jan. No., page 5.) and if the Quinby or Hazen form be desired use hea stories of double width: these will cost three dollars instead of two, and can at any time be used for frames instead of boxes, and with 10 frames (common kind) at 22 cents each. the total expense of a mammoth hive equal to the wants of any colony, under any eircumstances, is only \$1,00. Removing a part or all of the sides of a hive to get out the frames, or using close fitting frames of any description, would make it perfectly imposible for us to open and close hives with anything like the rapidity we do at present. We do not kill our bees in removing combs and seldom use smoke. The dollar hive is not our hive but can be made easily at the price, by any hive manufacturer.

"On, papa! Can't we make a grapevine grow up each post, and then meet the next one overhead, so we can walk ander it?"

" Novice," with hammer in one hand and saw in the other, staring in open-mouthed astonishment lirst at his "precocious offspring," and then at the grapevine trellis-

es, replies:

"Yes, my son, your idea is most excelent and opportune: for our three-loot trellises will prove rather small for a vigorous Concord without an amount of pinching back that would be irksome. A piece of hoop timber can easily be united against the first trellis, the other end extending up in the air and down again to the post of the next trellis, making an arch or bow of such heighth as to admit walking under it easily.

The effect of these 'arches of foliage,' and later, when they are covered with gracefully drooping pendants of pur-

"Tie 'em up with blue ribbons," interrupts "P. G.," at which Novice breaks down.

P. S.-Novice, Jr., thinks if he is but ten years old, his plan should be patented, but his papa tells him he thinks parents- "Supper is ready," announces Mrs. N., and Novice forgets both poetry and patents, at least for the present.

## HEADS OF GRAIN FROM DIFFER-ENT FIELDS,

No. 55.—Dear Novice: Do you know why bees sometimes leave the hive during the winter, if there is a day warm enough for them to fly? During this last week the weather has been pretty warm and several stocks have left their hives and joined themselves to others? If they keep on at this rate I will only have one large stock next season. If the bees would only seitle together, I could put them back, but they separate among the hives and force themselves in to them. I cannot understand why they do this, for all have plenty of honey; there is no sign of dysentery among them and they even leave brood in the combs.

Chas, E. Widener, Cumberland, March 8th, 1873.

The above is something decidedly beyond our comprehension, and we would enquire if this happens with bees wintered on their summer stands, as a general thing. We have noticed solitary instances of the kind but never, we supposed, with strong, healthy colonies. Caging all the queens would be considerable trouble and would even then only prevent losing them. for they at such times do not hesitate to desert their queens, and a contracted entrance would be but little better. Give us all the facts we can have in the matter. and we will find a reinedy we think. Mr. W. adds further:

1st. Do you allow your bees to swarm? 2d. How do you give meal to bees? I have tried everything but they will not have anything to do with it. 3d. 1s maple sugar fit for bees to eat? 4th, Do you use the same quantity of sugar to a gallon of water, when making feed to stimulate the bees in spring? 5th. In an apiary of your kind, don't your young queens sometimes get "muddled?"

1st. Never if we can help it: though sometimes they swarm without being "allowed;" we think the proper use of the extractor will rarely fail to be a perfect preventive; we know of none other. 2d. We used to coax them near it with honey, but of late years they "go for it" very soon of their own accord. 3d. In the spring and perhaps if very pure for winter use also. Ith. For spring feeding we discree no rule and don't think it matters. If too thick they can fetch water, and if the reverse evaporate it. 5th. Never.

No. 56.—Where I live is rather a poor place to keep bees after the middle of duly, and about thirty miles north west from here it is first-rate after that date on the Monarda Punctata, which yields till frost plenty of honey, and the best kind, even better than basswood. There is nobody up there who has used a machine that I know of. Only box honey, of which I bought a box for a treat to my friends, al-

though I had a half ton of white clover and basswood, and have got all yet, but two kegs of ten gallons each, which I sold for 15c. per pound to a store in Madison. I find that it will grow anywhere if cultivated, and in very poor sandy land with-out cultivation. I raised some of it in my garden last season, and I tell you it gave me a good deal of pleasure to see the bees work upon it. It is far ahead of eatnip or anything else that I have seen; there are other flowers that they work on as well, but they don't get the honey so plenty. When you see them going quickly from one flower to another, just about long enough to smell them, there's not much honey there.

JAMES MCLAY, Madison, Wis. We hope our friend will send us some seed of the Monarda for our experimental honey garden. His remarks in regard to the hasty visits bees give some flowers we helieve correct, for hees, like "we poor mortals," sometimes work industriously early and late and yet get but "little hon-We propose to test the honey qualities of all plants of which seeds are sent us (so far as we can on a small scale,) and will report at the proper season. Please give names and description as far as possible

No. 57.-Novice:-Our bees are carrying in wheat flour at a fearful rate. Have had an unusually severe winter, but look for a glorious long season this year. Do keep us posted on the honey market. We are going for extracted honey entirely, and expect to have tons to sell. In

haste, S. W. Cole, Andrew Chapel, Tenn.

Glad to hear it. No danger of too much

No. 58.—I have for years made the simplified Langstroth Hive you recommend, and my honey extractor is all that eould be desired, with a stationary can and galvanized sercen inside, made by a neighbor meehanic.

S. Luerui, Gnadenhitten, O.

Thank you Mr. Lnethi. We wish a few more would get neighbor mechanics to do the same. In our instructions for making an extractor in our Feb. No., we supposed we had given all the directions necessary, taking it for granted that all bee keepers knew that an extractor was simply a frame to hold the combs from breaking, while they were revolved inside of a can to eatch the honey that flew out hy centrifugal force; and we endeavored to give the simplest and cheapest way of making it, yet we are almost discouraged at the number of letters from all points, saying they ean't make it out. Perhaps those that we have assisted most and do "make it out," don't write us because they have no occasion to. We will hope so any way.

(Encouraging! Three just report having suceeeded.)

No. 59.-E. M. Johnson, of Mentor, O., Jan. 1st, 1873, writes as follows:

Jan. 1st, 1873, writes as follows:

I am trying the "vinegar bitters." as recommended by the anonymous writer in the Journal, and so fat it is doing finely. The stocks fed with it are as small and lively as in summer. The size of the hees is meant and not the strongth of the swarm, while those eating honey are alroady getting distended, and if they are confined long without getting on arc going to suffer with dysentery; have only a couple, however, that show any signs of it; neither did I have more than two or three last year, until March, after which I lost about one hundred swarms.

E. M. Johnson, Mentor, O.

No. 60.—
R. H. Dixon, Canandaigua, N. Y., asks:
"How shall I make a feeder for encouraging brood for every day feeding? Can young fertilized quoens he kept in cages in large hives, with laying queens at liberty, two or three weeks? How can I koep swarms from issuing, without cutting out queen cells or clipping queen? The best way of keeping empty comb through the summer, and comb with honey in?"

1st. Don't have a feeder; turn up one corner of the quilt and pour the feed on

Generally, but expect exceptions when they are not gathering honey

Take all their houey away with extractor.

4th. Put'em in a dollar hive and "pile

No. 61.—" How am I to manage to overhaul hives in the cold, bleak weather of April, to ent out moldy combs, clean out dead bees, contract space, feed to get bees to breed, ete? When the weather is chilly and damp the bees fly out on account of the disturbance, get chilled and never return ..... Is it not about time for me to stop fooling away money and time on bees? on the ground that the section is unfavorable or I am unqualified for the business of bee culture. Think of it-1 have been trying to get a start for the past three years-have paid out for hees alone not less than sixty dollars, for lumber. hives and fixings, enough to bring it up to a hundred-my wife says more than time enough to make as much more-two hundred dollars is a large sum for a poor man with a large family. Last fall I had managed at a cash cost of all they were worth, and trouble and worry enough to pretty nearly add as much more, to get four hives. But what I consider to have been the strongest one, is dead; one of them is rather weak; two have no brood, yet they have queens and eggs. The one that is dead had nothing but honey; the weakest living one had nearly all sugar syrup...... It the bee fever continues to rage, what section had I better emigrate to?

Very Respectfully, Yours, AN UNSUCCESSFUL NOVICE.

Never eut out moldy comb, however bad, until you have found by putting one eomb at a time in the middle of a strong colony in May or June, that they won's

make it good and use it at once. We have never failed in getting our worst combs made good if given a colony of Italians or Hybrids. When absolutely necessary take your bees to a warm room to overhaul, but otherwise never disturb them in weather that will prevent their returning to the hive, for we can't afford to lose bees in the spring "no how." Follow instructions given in "Starting an Apiary" and you can't well go wrong. Haven't you wasted some of the \$200 for patents? Either you have the value of the money in materials, etc., or it has not been judiciously expended. As we have said before, we insist again, that the greatest difference is in the bee keeper, and not seasons or localities. Experience will show you where you have failed, and if good results have been made with bees in your vicinity, they probably can be again. Don't emigrate, but see if you can't give us a better report ere long.

No. 62.—I don't know but that our bee doctors will make "confusion worse confounded" by their teachings, (compare together the last two numbers of the American Bee Journal, at Washington, for instance), but we learners still "want to know." You may perhaps remember that Gallup and I had a short passage at arms some time ago about wire gauze. Nothwithstanding, I still use the gauze and think it a very convenient thing to keep the bees from gnawing through the quilt or sticking it fast to the frames with propolis. And then it is so nice in the spring to turn back your quilt and sprinkle stimulating food through the gauze on the cluster of bees beneath; and no danger of even cross hybrids standing on their heads, getting in a passion, or going for you like a shower of shot.—[Dec. 21st., '72.]-

sion, or going for you like a shower of shot.—[Dec. 21st., '72.] — Well "Novice," I don't know but that I too will have to swing "my old hat." Bees so nice, bright and active. No robbing this spring; no use to try, too many wideawake guards to face. Bees carrying in flour, pollen, and water, and drones on the wing to-day. Guess they don't know what an arctic winter has lately visited these parts, and consigned most of their summer-stand sisters to the shades. Perhaps they don't look with an artistic eye on the bright and symmetrical appearance of "our city." caused by an application of white paint, combined with a "honey-comb"—arrangement of the apiary, "a la" "Novice," though they fill the air with their music.

10. P. Lane.

Koshkonong, Rock Co, Wis., Apr. 19, '73.

We don't know how the doctors get along wintering, but do know we succeed with very little trouble. Thanks for the idea of stimulative feeding.

No. 63.—And now, if you judge the length of a man's face by the number of bees lost (as friend Lucas docs), just put me down as the longest-faced bee man in Summit county. I suppose you can judge

somewhat how a poor fellow feels under such circumstances. Not much discouraged, but a little tired. I am almost ashamed to own it, but truth must out. I have lost 35 swarms last winter and this spring, the greatest loss I have ever sustained, and I am not alone in our town, for from one-half to two-thirds of all the bees are dead. Old fogies have fared the best this winter, and they have nothing to brag of. I had a great many die out, leaving plenty of honey in their combs. have a nice lot of combs in frames for over 50 single hives. My intention is now to build up swarms this summer and not make honey only in a few hives scattered abroad amongst my neighbors. I was to blame in my great loss; it being late when I returned from Nebraska (I not having reduced my two story hives before going West) and the weather being so unfavoraole I neglected to do any thing with them at the time, hoping the weather would change for the better; a delusive hope. This being the second time in 15 years that I have left my bees out of the house, with about the same result; a too dear experience, I hope, for me to try again. Thomas Pierson, Ghent, O.

#### SOME KERNELS FOR "GLEAN-INGS."

To those who are anxiously and patiently working for simplicity and case in handling hives and bees, I would ask a question and offer a suggestion for their digestion, if you please. I use no gloves, and seldom a veil, and when I get stung I squeeze the poison and sting out of the skin with my thumb nail against the fore fluger. Keep the thumb nail long.

I would like to hear of an extractor at a reasonable price. From \$10 to \$18 and express charges is simply prohibition to the great majority of bee-keepers. The inside, or running parts, might be madeportable, packed in small bulk and sent at less expense, with instructions for putting together and use. The can, or outside part, could be made by any tinsmith, or a half barrel might be used in an emergency. There might be a patent here for some of our landsharks.

Those that are troubled with their bees "laying out" can cure that by a wire cloth bottom board. An opening at least 1 foot square, covered with wire cloth 8x8 strands. to the inch, and a slide to close tight, stopping all draft when necessary, I consider indispensable, in very hot weather, even when they have plenty of room inside.

WM. H. KIRK, Chesire, Conn.

We can furnish the inside work for an extractor for \$2.00; gcaring included, \$3.50. This includes everything except the barrel or can; two size eastings are made, viz; to fit 17 and 20 inch cans.

With movable bottom board we should think an opening covered with wire cloth unnecessary,

#### PROBLEMS.

O. 10. How can we hinge a cover to a dollar hive in such a way that it will open and shut nicely and still be capable of being removed instantly with out a serewdriver or other tools, and also he attached with equal facility to any other hive? Such a hinge could be made but is there not something in the market already at a low price by the quantity? We think we should abandon the idea of having a handle in the center of the cover, for a quilt is all the cover needed in wintering or in carrying frames about in the apiary and is much lighter. By having places cut in the sides of the hive for the fingers, near the top and not quite through the board, they can be raised up and earried very conveniently, for the hive, quilt and frames, as we make them. only weigh about 10 lbs.; and the weight of the bees, hive, stores and all, ready to go into winter quarters should not exceed 40 los. Any man, aye, or woman either if need be, should be able to place the 40 los. whole apiary in winter quarters in a couple of hours, and feel all the better for the exercise. (Mrs. Novice and "P. G." protest so much against this latter, that we shall have to add that we meant when they enjoyed the health and strength that God intended for them, which "open air exercise" would very materially sid in giving them.

No. 11. Suppose we sell the queen from ten hives in May or June and put the combs, brood and bees all in one mammath hive of 100 frames: what would they do as honey gatherers? and would one queen prevent queen cells being built? Who has tried the experiment or a similar one? With the extractor we have no fears of being numble to prevent gwarming.

#### HONEY COLUMN.

S no one now offers any honey, we must conclude that all have sold ont, even " Gallup." - If the whole of last year's crop is already exhausted, we must conclude that Extracted Honey is not "so rauch of a drug" after all, for it's certainly good the year round.

E. M. Hatch, Evanston, Ill., writes: "I am desirous to raise box honey, but the shameful imitations of "pure extracted" will, I think, destroy the sale of the other. Give us all the help you can.

If every one of our readers will send as names and address of all persons dealing in spurious boney, we will give them an airing or our name ain't "Gleanings. The American Grocer, published weekly in N. Y., has promised to aid us in the sale of pure honey, and as they have a "swindle" department, too, if we can't handle the matter we will procure their agsistance.

### ADVERTISEMENTS.

Advertisements will be received at 10 cents per line each insertion, each in advance; and we require that every Advertiser satisfies us of his responsibility and intention to do all that he agrees, and that his goods are really worth the priceasked for them.

WANTED -- 300 hives of bees to be used as nurses in rearing Italian Queens. Address, Cadix, Harrison county, Ohio.

A LSIKE CLOVER SEED.—A nice are A ticle; 50 cents per pound by mail or 35 cents by express. A. P. ROOT & CO., Medina, Ohio.

TALIAN HEES.—We offer for sale about 200 colonies of Italian Bees in the American Movable-Comb Hive. Also Queens throughout the season. Purity and safe arrival guaranteed. For further particulars, prices, &c., send for circular.

BALDWIN BROS.
Sandusky, N. Y. Sandusky, N. Y.

#### BEE BOOKS.

A DAIR'S Progressive Bee Culture, price A 25 cents. Adair's Anuals of Bee Culture. The third volume just out. The first volume is exhausted; the other two will be sent by mail at 50 cts. each, or the three bound together in cloth for \$1.75, or either in cloth for 75 cts. Any of the standard Bee Books or Journals can be furnished at publisher's prices.

b. L. ADAIR, Hawesville, Ky.

PRICE LIST OF PURE ITALIAN Quecus and Bees from Shaw & Daniel's Apiaries, for 1873:

Apiaries, for 1873:

For last year's Queens, sent as early as the weather is snituble, 35 each.

Tested Queens, during the season, 54 each.
Untested Queens in June and July, 51 each. After the 1st of August, 52,50. Aft Queens sent by mail warranted pure and fortile. Safe arrival guaranteed.

Nuclous' Hives containing ourse Queen, with 6 frames oach, 8½ by 9½, \$8 oach. Can be built up into strong swarins or used for wintering surplus Queens.
Full colonies in one story Langstroth Hives, ten frames oach, \$13. Wide hives with movable partition board from 14 to 17 frames each, \$15. Two story hives containing 21 frames, \$15 each.

American Hives, containing 9 frames with

American Hives, containing 9 frames with space between top bars, \$15 each.

Each colony will contain a young Queen and 9 frames of comb, with extra frames, Seut by express and safe arrival guaranteed. Address

J.SHAW & SON, Chatham Center, or I. E. DANIELS, Lodi, Medina, Co., O.

WE CAN FURNISH HIVES ARRANG-

WE CAN FURNISH HIVES ARRANGFor the Quinby France,
For the Gallup France,
For the American Frame, or
For tho American Frame,
At the uniform price of \$1.00 each or 30 ets.
ready to nail. These will hold such frames as
are commonly used, or we can furnish frames
with metal corners for 6c, each, or both kinds
of frames can be used in the same hive. We
can also furnish an extractor made especially
for either of the above. Cheap style, 36; host,
31, ready to ship by freight or express. We
offer the ubove principally as samples, and
repeat our former statements that some one
should furnish such articles in every neighborhood, and thus saye transportation expenses.
The above hives are one-slory, and it takes
two of them for a two-story hive. As bottom
board and covers are just alike, only one is
furnished with each story. About 150 metal
corner frames complete, can be packed in a
single story.

Medina, O. Medina. O.



Or how to Realize the Most Money with the Smallest Expenditure of Capital and Labor in the Care of Bees, Rationally Considered.

## PUBLISHED MONTHLY.

Vol. I.

MEDINA, O., JUNE 1, 1873.

No. 6.

### STARTING AN APIARY.

No. 6.

Y June 1st, all Colonies should be strong and ready for gathering, and the skillful Bee Keeper should be able by diligence and care, to make them so; independent in a measure, of unfavorable weather. That is, if we are nnable to make up for bad weather during the yield of honey, we should be at least able to get our stocks all in condition for honey gathering before the honey season does open. To do this, brood rearing must be kept up during March, April and May, and this must be done, even should a season occur colder and more backward than was ever known by the "oldest inhabitant," etc., and in short, we shall tell you that if you don't get houey, the fault is in the Apiarist and not the season. If eolonies get weak as they will sometimes, it may be necessary to take them to a warm room, and to avoid the inconvenience of invading our dwellings, we will have a stove in the bee house temporarily, in the spring if needed. If the upper ventilator be made of galvanized iron it will answer equally well for a chimney, and a stove can be set up with little trouble. Warmth and food will always induce the queens to lay, but it is another thing to get the eggs hatched into larvae, (see Problems.)

Losses in the spring mouths must be avoided, and after one or two lessons of experience, we shall expect you to keep good all stocks having a laying queen after they are on their summer stands. Let every reverse only make you all the more determined to do better in future, and keep at this time of the year a constant watch over each individual colony, for you may set it down that those colonies that are petted, opened and handled most, will always be the best; be gentle and careful and don't stand before their door-way, nor annoy or hurt them in any way, for they very soon learn to distinguish your attentions from the rude bumps and jars

that too often fall to the lot of bees belonging to those who seem to think them sworn enemies to mankind.

We are often told to provide hives, etc. for new swarms, but we say provide bar-rels for your honey, and we should say at least one for every five colonies, for you may have a flood of honey without notice or warning, that must be taken care of as fast as it comes, or it is lost irretrievably. Get good, sound, new oak barrels; strong and tight, and to be sure they won't leak, treat them as follows: Get brings nicely fitted and everything handy and then pour into the bung-hole, through a tunnel with an opening as large as will go into the bung-hole, not less than ten bbs melted bees-wax made quite hot; drive in the bung, twirl it quickly on one end then the other, then roll it once over and back to the point of starting; knock out the bung, which should come out with a "pop,' member not to hold your head over it,) with the help of an assistant pour out the wax, and if you have done all "quicker than blazes," you will find your barrel nicely coated, every crack and cranny filled and not more than 1 lb. of wax used. The hot wax heats and expands the air inside forcing the wax into the pores of the wood and conting the whole as if it were varnished; with a small mirror you can reflect the sun on the interior so as to examine the quality of the work.

Place your Extractor on a bench or shelf placed at the center of the south side of your bee house, and of such a height as to allow of rolling a barrel so that the bung-hole just comes under the molasses gate. Screwthe Extractor down lirmly and make some little bags of cheese cloth for strainers, these are to be hung in the hung of the barrel with a wire ring a little larger than the hole, sewed in the top to support it. All the arrangements should be used and taken care of by some one of the "neater" sex, for it their strength is not as great, they more than over-balance this hy their dexterity and cleanliness in the use of such implements. A couple of barrels make all the stands or tables ueeded. (They should be well

painted after being waxed and the hoops

driven tight.)

A wire strainer will be needed to set in the top of a deep jar to place the eappings after each day's work; don't put them in the top of the hives nor attempt to save any honey of any kind by giving it to the bees during the working season, for it will prevent their gathering honey to an am't greater than such odds and ends are worth. After the eaps have drained several days, separate the wax and honey with the wax extractor. Our wax extractor cost us about \$8.00, but something to answer the same purpose could be made by almost any tin-smith for not more than half as much.

With the given arrangement of the apiary, the labor is not great, it each comb be carried in and extracted as fast as the bees are brushed off; but it preferred a light traine can be used holding from five to ten combs. With proper care in avoid-ing any exposure of honey that may incite robbing in the forepart of the season, that disagreeable feature in operating,

may be almost unknown.

When you have some honey barreled ready for sale write us how much you want for it and we will open our honey column again, and we bope to make it a

long list too.

P. S .- "P. G." says, "tell'em" before waxing the harrels, to stand them in the sun until they are hot and dry, drive down the hoops and proceed. If the barrels are cool or cold more wax will adhere than is necessary or profitable.

#### QUEENS.

sity for strong colonies, and strong colonies are the only ones that give us profit. We have, for many years, built up weak colonies in the spring at the expense of combs of brood from the strong ones, but we have of late come to the conclusion that we damaged our best ones by so doing more than poor ones were worth; yet it must be borne in mind that this applies only to such as are weak, because the queens are not prolific; oceasionally the bees get thinned down in spring by dysentery or gradually from freezing in small clusters away from the main body until they cannot take care of the eggs even, of our best queens, and such stocks it will unquestionably pay to We have this season several colonies that had dwindled down to almost nothing, and to save queens that we supposed valuable, after futile efforts to strengthen them up with hatching brood, we caged their queens and exchanged places with strong colonies while flying briskly. Two of these were killed when released, although they had been eaged four days; one don't lay eggs at all now, and two have been replaced and queen cells started from their brood, a state of affairs that don't please us we assure you. It is

sometimes difficult to decide whether the fault is with the queen or elsewhere, but we should advise replacing all queens not up to the standard, as soon as we can get a better one. We can usually judgo of the queen's prolifieness by her manner of de-positing the eggs. If we find eggs and larvae of different ages mixed up with scaled brood, we should pronounce the queen a "slow ceach" and deficient in system and judgment at any rate, and after submitting her to the following test we ean be pretty sure of getting a correct measure of her worth, viz: as soon as the eolony will bear it without injury, place a nice, clean, empty worker comb in the count the eggs, and see if they are in a compact cluster. If at the first experiment the comb should be filled with honey and pollen, try it again. In good weathes not less than 1000 eggs should be deposited in that time; but much depends on the strength of the colony.

Who can report the largest number of

eggs in a comb in 24 hours?

If so many queens are poor, the question may be asked, how are we to be sure of rearing good ones? That's the question, and to be frank, we really don't We do know that we have reared know. long-lived, prolific queens many times under what would be called quite unfavorable eonditions, and others reared under conditions that seemed all we could desire have failed in from three months all the way up to three years. Although we have used queen cells constructed when a queen was to be replaced, and also at the time of natural swarming, we find them on an average no better.

Snitable weather and enough bees (more than a fair working colony is useless) seem almost a necessity, but even then but

few extra prolific queens are reared.
"Novice" insists that "lots of pollen" is the key to invariable success, but we can hardly expect anything practical from him until he gets somewhat over his "pol-len mania." If each one of our large family of novices will send in their experience and opinions on the subject, we may be able to glean from them something valuable. Are queens reared late in the fall or early in the spring usually as prolific? "P. G-" thinks a lot of queens equally as good as a dozen of our best, would be worth \$25 apiece to us now, but that a dozen like our poorest would be dear at about four cents apiece.

WE will, for the benefit of Apiarian Science, advertise gratuitously anything we deem of universal value to bee keepers, offered at low rates. At present this department only includes honey and eggs from Imported Queens. We hope to add artificial comb foundations, when some ean be furnished that fully answer the purpose.

## AGASSIZ'S "LIFE IN THE BEE HIVE."

Twould seem that, in this age of bec journals and in consideration of the fact that under the present system of managing bees whereby the bcc-keeper becomes as familiar with all operations of the interior of the hive, almost, as of the transactions of his own domicile; our people's teachers might at least keep pace with our late discoveries, and drop errors of the past, since even "Novices" now recognize them as such.

The lecture of Prof. Agassiz, as we have it in the Tribune of May 10th, given at Cambridge, Mass., must have been the work of some one not conversant, personally, with bees, and not familiar with mod-

ern bee-keeping.

Passing over the remarks in regard to swarming, for the error in regard to the cause of swarming may have been only the effect of so brief a notice, we read:

"The swarm having alighted near a favorable spot, a single working bee-one out of twenty thousand, perhaps-starts from the crowd and lays, not the first stone, but the first piece of wax which is to be the foundation of a new comb.

And again:

"The first bee having made the first eell, a second bee comes and stands opposite her, head to head; then another at her side, so that the two stand side by side, and the rest follow in definite position, each building a cell around itself, until gradually a good-sized comb is built.'

Now actual observation shows (and the matter can be tested in a few minutes in hundreds of apiaries where the bees are accustomed to being handled) that a "single bee" never makes a cell at all, and bees never, under any circumstances, "build the cells around themselves, that in comb building the bees all change about so rapidly that it is seldom that any bee builds comb more than five minutes at a time, and even then the work is a series of skippings about from one place to another, always standing on the outside of the cells; and the surprising part is that the work of each one so nicely agrees with that of the rest, as if each one was only a part of the same insect or organization, for whether they build worker, drone or queen cells, they agree in working toward one common end.

The cells are seldom or never built full length at once, but are sometimes used by the queen when scarcely more than the foundations are completed, and are also used for honey and pollen when built half length or less, and are afterward length-ened out as needed. Finished comb is also "cut down" and "lengthened out" as circumstances may require for broodrearing or honey-storing, as the case may be, so frequently that our combs are constantly undergoing change; and all this work is done by no single bee, but by

the community, scemingly guided by one

intelligence.

Although considerable variation can be seen in some combs, many of them, when conditions are favorable, are more uniform and correct than most works of art, or nature, either, and we believe we are justified in saying that irregular comb is the fault of external conditions, temperature, ventilation, etc., and not the fault of the bees.

Again we read:

"Two or three such cells will usually be formed in one comb. In old colonies it often happens that no provision is made for the advent of a new queen, and in that case no royal cells are built; but in a new community several such cells may be seen upon one comb."

The above leaves the impression that queen cells, as well as drone cells, are an original and permanent part of the comb, which is by no means the case, for they are constructed only temporarily and over any cell upon any part of the comb; are removed immediately as soon as they have been either used or abandoned, and are never seen upon the comb only at such seasons of the year as they may have occasion to rear queens, unless it be an exceptional instance, where a comb has by some means got outside of the cluster be-fore the cell was removed, and then we have only the rudiments of what may have been or was intended for a queen cell. Queen cells are rarely, if ever, used twice for the same purpose, and we should at once consider that something was wrong with the queen of a "new community" should they construct queen cells on their combs.

Since queen-rearing has become an important industry, points that were but lit-tle understood a few years ago are now quite familiar matters, and our queenrearers have, with much care and skill, carefully noted all the requisite conditions for rearing perfect queens, and, what is still more commendable, have compared notes through the medium of our bec journals, each one giving gener-ously the full result of his orher investigations, and, as a consequence, error has given way and much truth has been brought to light. When scientists can be brought to work side by side with our practical workers, we may hope for better things; and the fact that the latter class are mainly actuated by dollars and cents will not, we hope, be found to make their deductions any the less valuable.

Our apiary now numbers only fiftyseven hives that have bees in, and of this number ten are queenless, besides a dozen more that contain queens of the "four cent" valuation; for they scarcely excel "Old Grimes' hen," that

> "Laid two eggs on every day And Sunday she laid three.

# NOVICE'S Cleanings in Pee Culture.

## A. I. ROOT & CO.,

EDITORS AND PROPRIETORS.

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## [PRINTED AT MEDINA COUNTY GAZETTE OFFICE.]

## Medina, June 1, 1873.

In our January number we gave the credit of the "Railroad idea" to Mr. E. B. Blakeslee; it should bave been E. C. Blakeslee, Mcdina, Ohio.

At present, May 22d, both the bees and "Novice" are rejoicing over a yield of honey from apple blossoms that we have never before seen excelled. Some colonies have filled one story so full that we have given them a second one, and at this rate extracting will have to be the order in less than three days; yet not more than a week ago we were feeding to prevent starvation. "Such is (not life, but) beekeeping.

WE are really fcarful at the present date, May 28th, that "eggs for hatching" will only answer when mailed short distanees; for our third piece of comb from Mr. McGaw has also failed to produce any brood although the weather was quite favorable during transit. As an experiment we have to-day placed a piece of comb with eggs in our bee house and will report just before going to press whether it retains vitality three days. As we can get no imported queens until Dadants first importations, we are obliged to send such eggs as we have, or forward the orders to Mr. McGaw. We consider a queen received last fall from R. M. Argo, Lowell, Kentucky, our best for disposition, and abundant egg laying, and shall send comb and eggs from her. Of three queens received from Mr. Cary, of Colerain, Mass., we succeeded in bungling them all out of existence finally, and Novice sorrowfully remarks that he fears he shall be a "Novice" always.

LATEST: -Eggs out of hive three days, all right. Temperature 50 to 80°.

Gop helps those who help themselves, is an adage quite true in bee-keeping. In the spring of 1869 we lost all of our forty colonies by dyscntery except eleven. These eleven were increased to forty-seven colonies that season, for our losses only strengthened a "dogged" determination that we would conquer, and with the aid of our bee house we wintered every one of the forty-seven, and seemed 6162 ths, of honey from them in 1870, which was sold mostly for 25e, per lb. We worked for this result, for the sting of loss in wintering was not lessened by the prophesies of "wise heads" that such enormous increase could not be healthy and and natural; but the three tons of, honey was both "healthy and natural," and we laughed in turn at those who had talked "nature" versus artificial swarming.

### ROBBING.

MANY complaints have been made this spring about robbing and that even Italians not only fuiled to defend themselves at times, but allowed the invaders to earry off their honey with perfeet unconcern and good nature. Now we have prided ourselves on having hept our bccs all bonest this spring, and have told our friends that the fault must have been their own earelessness, etc. But just as fruit blossoms were yielding their best, it occurred to us that our Quinby hive should be brushed out and got ready for a new stock of bees. The hive contained perhaps twenty or thirty pounds of scaled honey, natural stores which remained after a strong colony had died of dysentery in it in March; (exclusive natural stores as a last experiment); well after all our care and experience we forgot and left the entrance open, and of course we had robbing too. The mischief was stopped as soon as discovered (only a few hours) but not before three colonies were in turn attacked and demoralized before we could get them sufficiently over their astonishment to defend themselves from the ruin that they, for a wonder, seemed to be entirely unaware was threatening them; two of the queens were found, but died afterward. They were caged and their hives "swapped" for those of the robbers; this gave plenty of bees and stores, but we now have queen cells instead of queens, which we think a bad "swap" for the first of June. Novice really begins to think that if things coutinne thus he will have to turn back and learn over again. Moral,-Be very careful how you leave combs of honey at any season where bees may get at them and thus acquire bad habits.

## HEADS OF GRAIN FROM DIFFER-ENT FIELDS.

O. 6f.—Is dissolved sugar as good for raising young bees as honey? You apport to "go strong" on wintering bees on sugar. In this country, where honey is high, I would like to put as much on sugar as I can.

DANIEL FORD, Floral, Kansas.

We think it certainly as good and without question, cheaper. Reports from many sources justify us in saying that the addition of cream of Tartar, vinegar, glycerine, &c., are entirely useless. Mr. Johnson informs us (see Heads No. 59) that his bees did not winter well after brood-rearing in February and March, and that he considers the vinegar injurious ulthough his great loss was occasioned mainly from large amounts of honey dew gathered last fall. A single comb of such honey, heavy and completely scaled would kill a strong colony in a week that that had been heretofore healthy; und, strange to say, the bees seemed to winter on it well enough until they commenced brood-rearing. Is there not a connecting link between this fact and the idea in Problems of this No.? To go back; for spring feeding use sngar and water in whatever form is most convenient, so that bees will take it without waste, and it may be dissolved in hot or cold water, as is convenient; and the same can be said of feeding to prepare colonies for winter, only it must be scaled up before cold weather.

65.—I put 10 stocks of bees into a clump made by piling the hives in a pyramid, covering with straw, then earth, with no ventilation. One died from lack of stores and one from having nothing but candied honey. The rest came out in splondid condition, with the exception of a few mouldy combs. Most of the stocks were weak when put in and had very little honey. I think the clamp is a good way to winter weak stocks. I put them in Nov. 12 and took them out March 25th.

Apis.

Will Apis tell us if the eandied honey was sealed over? It is our impression that neither honey nor sugar syrup is injured by being candied if scaled over. The objections to clamps are the necessary litter and untidiness generally, besides inconvenience of access.

inconvenience of access.

66.—It has been a principlo with me for several years in markot gardening to raise the largost possible amount from the smallest amount of land, and to sell so cheaply that those who had heretofore bought articles at those who had heretofore bought articles at those who had heretofore bought articles at those who had be will consider them as a necessity, and by this means create a permanent market. I think that to be the drift of 'Gleanings,' and if so I'm with you. You claim to be a Novice, hut I am a 'novice-or' fellow than you, and when I read the article, 'Italian Quoons for Twenty-five Cents,' the idea eccurred to me that pure bred drones could be shipped cheaper than either queens or eggs. What think you of the idea? Would it not rovolutionize things somewhat! Stock preeders tell us that by using the rough bred males always we can soon obtain all the desirable points we wish. Following out the idea, I do not see why pure drones, of which there are always plenty, could not be used to tertilize our black queens by Mrs. Tupper's method, and in a short time our colonies could become Italianized. I do not know why a lot of drones cannot be kept by themselves on

hand for use whenever wanted through the season.

J. M. Hill, Greenville, Ill.

In our locality black drones ontnumber Italians so greatly that we fear the use of drone eggs will be of little use. So very few have succeeded with Mrs. Tupper's method that we fear it will have to be abandoned, and can't help thinking that there might have been some mistake in the original experiments. Until we can have some process by which others can sneed at least occasionally, we should advise not spending more time or money on the subject.

67.—How would it do to paralyze hees with puff-hall and commence transferring immediately in a warm room? I think I will try lt.

N. E. PRENTICE, Castalia, O.

We would much rather have live bees to deal with than paralyzed ones, for they would then get out of the way and eluster around their brood. Turn over any box hive and give them a little smoke, and they are almost as harmless as flies. During the bloom of the apple trees we should even omit the smoke.

68.—For the past two winters I have left my strongest stocks on their summer stands protocted from the north wind, and they have died. While I have saved most of those put in the cellar and some of them are very light.

M. G. Palmer, Portland, Maine.

Such seems to be the general report, although a few report directly to the con-

69.—Ist. How can you raise bees and grapes together? Our Congressman, Hon. R. T. W. Duko, refused to receive as a gift one of your papers, saying he intended to destroy his bees because they destroyed his grapes. Send the Journal to him at Charlottesville containing your answer.

2d Is the wintering house for bees advisable in middle Virginia? Not a month passes but the hees can fly out, no disease, no loss except from starvation or loss of queen, iste swarms useloss, and no pasturage after the 15th of July.

3d. How can I remedy the defect? want of late pasturage.

4th. I want to make five Italian swarms out of the 25cts. of comb. How am I to do it? I have a lot of comb on hand in Langstroth frames and some 20 stands of bees mostly in Langstroth's hives. Season bad for 12 or 15 days past—cold and wet. Apple troe hlossoms lost. I once wintered a late swarm in a dampish collar on 5 bs. of honey; combs very moldy, no upward ventilation, little loss in bees. 15th Nov. to 1st March.

John B. Townley, Red Hill Depot, Valst.

After giving the matter considerable attention at different times we fail to discover that bees ever notice grapes of any kind unless they are broken open by birds, fowls or insects, they then gather the juice as they do from sweet apples, We have always raised a fine erop of Concord's and some Iona's, Catawbas, Isabellas, etc., but never had them injured in the least by the bees, although our hives have clusters of grapes all about them. When common fowls had access to our apiary the bees seemed quite active on the clusters they had broken and destroyed; but when they were feneed out, the bees ceased to notice the grapes although many of them hung on the vines until after frost.

2d. Having had no opportunity to test

the matter would suggest that bees be housed in a location where a zero temperature is known in winter. We think a saving of stores might be effected even in warmer climates, but perhaps it might be necessary to use a cellar or one made purposely, to keep them cool during warm spells.

3d. We think it will be found that as more bees are kept, pasturage will grad-nally improve, for those plants that are visited most by bees produce more perfeet sceds, and thus the bees themselves ultimately aid in producing fall pasturage by their agency in fertilizing the blossoms. When you (and bee keepers generally, of course), have kept 40 or 50 colonies in one locality for a half-dozen years, we think you too will find that you

have fall pasturage.
4th, When you have the eggs hatched in your pieces of comb (see directions in May No.) make five unclei and compel them to raise queen cells from the lurvae in question. When the queens are hatched build them up by combs of brood from other colonies; your empty combs will assist very materially. We have also known a colony wintered on a little over one pound of food per month, and have faith that it can be done every time; but we have as yet been unable to arrive at such a result uniformly.

such a result uniformly.

70.—Four years ago last fall, two of my brothers, who were partners living near Covington, had 38 colonies of hees and it so happened that one of our merchants had a lot of good coffee sugar which somehow had got scented with coal oil, so he offered it at half price. My brothers concluded to try some of it for their bees, so they took all the honory away from one stock and fed them enough of this scented sugart to do thom over winter, they took it as though there was nothing in it and sealed the most of it over nicely; during the winter and spring they lost all their bees hy dysentery except four, and the one that had the sugar was the only one that was not diseased.

JACOB M. MOHLEA, Covington, Ohio.

We give the above as a sample of many

We give the above as a sample of many of the reports in the same direction. Next fall we will try and give plain and and simple directions for preparing bees for winter.

71.—My experience in losing swarms by the swarming out process is as follows: I have never known a swarm in good condition with plenty of bees to leave the hive, whether wintered in a ropository or on their summer stands. I have frequently lost, and have lost this spring, several weak swarms. Is it possible that a few robbers get in and demoralize the swarms causing thom to fly out leaving honey, brood and even the queen? I leave the queen to the outsiton for others to solve. the question for others to solve. SCIENTIFIC.

Reports seem to indicate that it is weak eolonies generally, but sometimes, we are sorry to add, good, strong ones; and we feel "cross" now to think of the recent loss of a favorite queen, bees and all by this cause, leaving much unsealed brood in all stages.

72.—I like your hive except the entrance, which looks like a poor thing. Perhaps your door-step when attached, makes it all right. Can you regulate the entrance in het and cold weather in a satisfactory manner.

JOHN ASHLEY, Bloomington, Ill.

With the door step, (which should have two strips nailed across like a letter V inverted, to prevent warping, and to gnide the bees to the entrance when made small in the spring,) we have no trouble. Those wbo prefer, can bore an auger-hole in the front end, and Mr. Quinby, we believe, thinks such an entrance an advantage, because the bees show a preference for it; we, however, can discover no positive advantage and dislike the holes when any one of them happen to be used for an upper story. Our aim has been to have any piece answer equally well anywhere, and to have those pieces as few and as plain and simple as is possibly consistent, with convenience and rapidity in handling.

73.—Notwithstanding my loss, the evidence I see in favor of Sigar Syrup is so favorable that I would without doubt feed it on a large scale in preference to their native stores. It does look to me as if the idea would be one of vast service to us notwithstanding I have been slow to conclude that any food was as natural for them as their own stores.

R. Wilkins, Cadiz, O.

R. Wh.kins, Cactiz, U.

74.—However objectionable tight top bars may be, I must think that it would be an advantage to have the frames secured in their places at the top at least. I expect my ideas will be much modified by experience, but I find it very much like loarning to swim; you have got to go in on your own judgment before you know how, but had better keep in shallow water until you know what you are about. I want all the advice from the experienced that I can get, but as much of it is so conflicting, shall have to decide for myself after all.

Ceder Mountain, N. C.

Mr. P. utters some type good sense in bis

Mr. P. utters some rare good sense in his last remarks, and we do hope he will try closed top frames in "shallow water" before "going in deep;" as our experience may bave some weight, we will give it freely. After an experience of five years with about 30 hives with closed top frames and as many more open top, we were forced to conclude the closed top ont of the question, where bees are to be handled, as it seems to us they must be for box or extracted honey either. Wherever bees find two pieces of wood close or near each other in the hive, they glue them fast with propolis; also every crack and crevice and even the entrance blocks are "gnmmed" in place so that nuless they are frequently "scraped off" they cannot be kept up in place. Again. combs all alike in thickness and curva-ture, for they will curve, are not to be had, and the consequence is they must be always replaced in the same order or brood is killed and bees and combs are If we attempt to number the crushed. combs and always keep them in the same place and in the same hive, how are we to make artificial swarms and equalize brood and stores. Whenever an opening is made into a hive large enough for a bee, those inside especially young bees, begin to crawl out and those outside to crawl in, and when we are closing the tops of the frames together the same thing happens; it is true by bringing the sharp edge of the trame up gradually they can be made to crawlin or out, but

can we afford to waste so much time, for in extracting 50 two-story hives we should be obliged to do this 1000 times. With frames made of \(^2\) width top bars we can give each comb wherever it may come, all the room needed, and the average thickness of the ten combs being such that we never find any trouble in giving each one the proper amount of room, or in removing any one we wish "in a twinkling," even without stopping operations in comb building, hrood rearing or ovipositing. The same remarks will apply equally to closed end frames, yet almost every beginner in apiculture "goes strong" on the idea that frames should be kept at fixed and equal distances; a very nice theory, like many other things, but we believe generally quite inconvenient when put in practice.

75.—Do you leavo all the frames except the one in which you put the piece of comb, empty, or is it bottor to put in with it, other frames containing brood, &c., from the eld hive? Please answer if not too much trouble, for I am a beginner.

JAMES W. SEWALL, Old Town, Maine.

A frame of scaled brood just next the comb containing the eggs from the imported or choice queen, would be an excellent idea if one could be found in the old hive positively without eggs or larvae, or any brood confi might be put in after queen cells were scaled from the choice eggs. But be sure you make no mistake or you might blame the sender of the eggs when he was not in fault.

76.—Tell the boys and girls to carry two or three pineburs to throw at flying swarms, it will bring them overy time, for pino burrs look like a bunch of boes.

W. STUART, Natchez, Miss.

#### AN ITEM.

"F a swarm of bees is hived in a "simplicity" or other movable comb hive, will they be as likely to build combs across the frames as parallel to and in them? What plan do you adopt to make them work by the "square rule?" We need more light on the question, "How shall we get the bees to build straight combs in frames?" Light your candle, friend Novice, and place it on a "simplicity" hive. Jos. Sixron, Ithaca, N. Y.

A pious old deacon who was fond of fish once told his boys "never, under any circumstances, to go fishing on the Sabbath; but if they did to always bring home the fish."

Now we say don't have nitural swarms, but if you do, always give them some comb for a pattern, and insist on having each comh built between two good ones, or one and the side of the bive. This is no more trouble than to feed your nony daily, yet you never omit that. We know of no nieer fun than to watch and direct the growth of new combs. Again, never put a new swarm into an empty "simplicity" hive, but if you do, fix the quilt closes ly over the top of the frames and raise

the back end a little; we believe the hees seldom fail under such conditions to build their combs along tho thin comb guide.

WE clip the following from the Rural New Yorker:

BEES BY MAIL.—The shippers of bees by mail are complaining because some of them pay only paper postage on their shipments while others are compelled by post-masters to pay letter postage. They demand an uniform interpretation of the law. Then the post-masters are complaining because hees are shipped by mail, and evidently think they should he excluded. They are shipped in this wise: The cage is a block of wood, in which are three large holes, covered with a fine wire netting. Seven bees, including a queen bee, are placed in each compartment, and are introduced through a hole in the side of the block, which is plugged up by a piece of sponge soaked in honey. The post-masters and clerks allege that the honey soaks through the paper placed over the holes and daubs other mail matter, and besides, as one post-master complained, the clerks in his office did not get through examing and studying the contrivance until the bees stung every one of them, and in showing them how it was made, and how to handle it without injury, they stung him tool

Now it may be that all queen rearers use a block in which are hored three holes and that they put in seven hees, hut we really cannot think they have been so careless, shiftless, or slovenly is the proper term perhaps, as to put in honey in such a shape as to soil the other mail matter or allow a possibility of the bees getting out. If the wire cloth was pried off by the clerks of course they could not blame the bees nor the sender; but as we read the postal laws a queen and a dozen bees can be sent for two cents as well as other merchandise, and it any kind of care is used in shipping, there can be nothing about them to endanger the mails or employees of the department. Mr. J. W. Winder of Cincinnati, makes a queen cage that we think might answer excellently for mailing, if he will add a secure cap to confine the bees and also to aid in preventing it from being crushed. Mr. Quinby sent us a queen a few days ago with no other food than a hard lump of loaf sugar and some water in a sponge they seemed in excellent condition and we think the plan worthy of imitation.

So many prefer  $\frac{2}{8}$  instead of  $\frac{1}{2}$  inch space between the frame and the Live, that we have reduced the length of the arms to our metal corners  $\frac{1}{8}$  of an inch, and all made after May 20th, will have arms  $\frac{3}{4}$  instead of  $\frac{7}{8}$  as heretofore. The change is so slight that no inconvenience need result thereby.

#### PROBLEMS.

O. 12. Can bees raise brood without pollen if all other requisites be supplied, viz: Honey or sugar syrup, summer temperature, eggs, etc? Our recent experiments seem to indicate they cannot; for instance, we placed several weak colonies in our bee house during the late cold storms and warmed it with a stove to the proper temperature. Eggs were laid in abundance, but none of them were hatched into larvae until a warm day occurred, enablingthem to gather natural pollen, this was quickly gone and unscaled brood was found; there came more bad weather and when the pollen was gone we had the same thing over again. Even strong colonies destitute of pollen, during the bad weather, had only eggs and sealed brood, although fresh eggs were found daily, none seemed to hatch until pollen was secured.

No. 13.7 "Novice" has so far "gone wild" on pollen that he insists on our offering a reward of \$5.00 to the bee keeper who will give us a substitute at an expense of not exceeding 5c, per lb., that bees will use from an empty comb during bad weather and thus cause brood to be reared when desired. He reasons that one pound of pollen would produce more brood thau ten lbs. of honey or syrup fed daily in small quantities, and the latter is certainly laborious compared with giving them a like

quantity all at once. We have tried the unbolted meal that they work on freely when they can fly out, but have never been able to induce them to use anything of the kind in the hive; but "Novice says, a comb of old pollen even will insure a comb of unsealed larvae immediately, and so his "last hobby" is pure sugar syrup for winter diet, and then in March or April, or whenever brood is deemed desirable, comes filled with POLLEN are only to be inserted to secure brood rearing up to any limit short of the number of eggs the queen can furnish, and observation shows that very few indeed of the eggs laid are allowed to hatch We do during the months mentioned. not think much brood rearing desirable before March, and cannot find it any positive advantage to have much brood rear-ed very late in the fall. Who will get the **\$**5.00 ?

#### ANSWERS TO PROBLEMS.

ROBLEM 9. We have had two pieces of comb from Mr. McGaw, neither of which produced any larvae, owing to the frosty weather during the time they were on the way we suppose. Mr. McG. writes May 19th, thus:

Your comb goes by way of Chicago, and it is several degrees colder there than here. In June, if you want a virgin queen, let me know and I will send you one, I mean free. I sell them at one dollar each, and guarantee safe arrival.

In answer to Problem No. 10, I use a hinge constructed as follows: Take four common serew picture rings with 3 inch serew and about & inch ring; serew two into the upper edge of the hinge at proper distance apart, and two into lower edge of corner, so they will set close inside the lower rings and the rings opposite. Pass a round strait hard wood stick through the rings and you have a hinge that costs but a trifle and can be taken apart in a second. Will this do until you find something better? Yours, &c.,

SCIENTIFIC.

Thanks friend Scientific, your device is very cheap, (rings can be purchased for 40c. per gross,) and we think will answer every purpose. We would suggest smaller rings and a galvanized wire put through with the ends bent enough to keep them in place. These would be less in the way and we think will prove all that could be desired. One-eighth inch rings would do, and we shall think it a favor if any one can find a sample of such in the market and lowest wholesale rates.

Our bees will persist in rearing hosts of drones. It is true "Novice" slices their heads off; ("P. G." refuses, as she says, "tain't in her department,") but is it not a great waste to get up drones for decapitation? We can, with considerable trouble, get comb enough all worker for a few hives, but the best will have some drone comb intermixed. Can we not have artificial Comb all worker? Will not some one put them in the market?

#### ADVERTISEMENTS.

Advertisements will be received at 10 cents Advertisements will be received at 10 cents por line cach insertion, eash in advance; and we require that every Advertiser satisfies us of his responsibility and intention to do all thathe agrees, and that his goods are really worth the price asked for them.

PURE ITALIAN QUEEN BEES.—Send for circular and price list. Address J. SHAW & SON, Chatham Conter, or I. E. DANIELS, Medina Co., O.

HONEY JARS.—One ib. per gross, \$5.75:
corks, 60 ets. Two ibs. per gross, \$8.75;
corks, 70 ets. One-quart Fruit Jars with Tin
Caps, per gross, \$9.50. Other styles furnished
if desired. Address
NUNN BROS., Oberlin, 0.

WANTED.—300 hives of bees to be used as nurses in rearing Italian Queens. Address, Cadiz, Harrison county, Obio.

TFALIAN BEES.—We offer for sale about 200 colonies of Italian Bees in the American Movable-Comb Hive. Also Queens throughout the season. Purity and safe arrival guaranteed. For further particulars, prices, &c., send for circular.

BALDWIN BROS.
2-9 Sandusky, N. Y.



Or how to Realize the Most Money with the Smallest Expenditure of Capital and Labor in the Care of Bees, Rationally Considered.

#### PUBLISHED MONTHLY.

VOL. I.

MEDINA, O., JULY 1, 1873.

No. 7.

#### STARTING AN APIARY,

No. 7.

IND readers all, if you have followed us thus far you are probably now ready for business, and to confess the truth, we prefer during the extracting season that you stand beside us and help us decide upon the best plan to "run" it, now that we have you fairly started.

In the first place, those of you who have, like ourselves, been in the habit, until recently, of having the hives some distance from the extractor, have of course been accustomed to removing all of the combs from the hive and then taking them, at one load, to be emptied. Now it seems to make but little difference whether the bees be left destitute of combs until they are returned or not, for we believe they always wait patiently for them, or whether the set of combs from the previous hive be given them.

It would seem that the latter course would send them to the fields again sooner, and we are quite certain that it makes no difference to them whether they have their own combs or those from another hive, and as a considerable amount of lahor is saved the operator, we shall recommend the latter.

The objections are that very soon the identity of any hive of bees is lost, and you have no particular choice stocks to show visitors, for all hives contain hybrids or Italians, just as it happens, and there is some danger of throwing a quantity of brood and eggs under the care of a colony too weak to supply all their wants.

With the "hexagonal plan" of the apiary each hive is so near one of the doors of our bee house that the work is not very great if two combs be taken from the hive, carried in to be extracted, and two empty ones brought back; when robbers are not troublesome this plan is very simple and does very well.

The nearer our bees become pure Italians the greater is the difficulty of removing them from the combs, for the harder heavy combs are shaken the more persistently they seem to hold on, and brushing off a large number with our bunch of asparagus tops is slow business. Now comes the point where we want "head work." If we take two combs from the upper story first, and shake and brush off the bees, the same ones will need to be "got off" again, and still again; which is a troublesome process, besides being almost too much even for the patience of Italians. If they are shaken in front of the hive, as we did formerly, they are a long time getting in. The thin honey is thrown on the ground and door-step, and attracts robbers, and the danger of lasing the queen is greater than when they are the queen is greater than when they are shaken on the top of the frames or directly into the empty hive. Lifting the tenstory off and doing the lower one first partially remedies the difficulty, but Novice says although he can carry "stoves," etc., when necessary, he don't "hanker" after the job of lifting an upper story full of honey and setting it down "somewhere" carefully if it can be only any means the next the carefully if it can by any means be avoided, besides, bees that have been "well brought up" and behave well when handled in the ordinary manner are almost sure to "kick up a row" when divided in this unceremonious way without recourse be had to smoke, and we enmot think smoke necessary at any time during the honey season.

"Well, Mr. Novice," says "P. G.," "what would you have? It seems you can never be satisfied.

"I would have an extra set of combs for the first hive, which should be slid its length backward and a new one put in its place containing these combs. Now all we have to do is to shake the bees into this hive, and they can proceed with work at once. When all the combs are out, slide the hive just back of this (at the next trellis) back, put the empty one in its place and proceed as before

"But, Mr. N., quite a number of bees will remain in the empty hive, and possibly the queen; these must be jarred off, and then, when the combs are emptied, they must be put somewhere. Why not carry the empty hive into the house, and

then I can arrange the combs ready to be

placed on the stand at once.

"Yes, I have thought of that; our "Simplicity" hives could be earried in that manner very well, but as most of the hives are the old style Langstroth, 'twould be rather laborious. Again, we could not slide the former back on their stands as we have them arranged as well as the latter. If one was 'big and strong' and 'telt so' all the time during this hot weather, the combs might be placed in an extra hive after the bees were removed, taken in and extracted, then placed on the stand of the next, moving that backward as we have mentioned.

This would make less steps and would expedite work considerably, but would recessitate carrying an empty hive, or rather one story without cover (covers should be loose for this purpose), in doors

and out continually.

I presume friend Blakeslee's milroad would solve a part of the difficulty; but I can hardly fancy I should like the idea at all of having extractor, barrel implements, etc., perambulating about among the hives.

"Nor I, either, Mr. N. Our bee house, as it is now, since we have two doors, painted, etc., is nice and convenient, and I wouldn't want to be pushed about in a

car, no how.'

And now, fellow bee-keepers, having shown you just the quandary we are in at present, we should very much like to hear from each and all of you on the sub-ject; give your plans and ideas, that we

may compare notes.
If the "railroad" solves a part of the difficulty, Adair's "Long Idea" hive would solve the other part, but only at the expense of having double the amount of cover and bottom board for the same capacity as for a two-story hive, and being obliged to carry all the hive or none indoors to winter, and having no place to keep our extra combs secure unless they are all kept in the hive the year round.

"P. G." remarks that "extracting honey by the ton is a laborious operation any way we can fix it," but we know it can be so managed that many useless steps may be saved and much heavy lifting avoided. It must be done at a season when labor commands the highest price; few can be hired to work thus among bees at all, therefore it is of the utmost importance that we economise in the ways we have named. We think in our own apiary, as it is now arranged, two tons of honey can be got ready for shipment with as little labor as was required three years ago for one. Our barrels are made for us by a cooper who keeps bees, and so knows how they should be made. They hold about fortyfour gallous or about four hundred and sixty or seventy pounds, and cost us about \$2 each, transportation extra; they are strong enough to ship safely anywhere when waxed.

Several have written us that the beeswax

may be half resin and answer equally well, as it can be purchased for about five

eents per pound in quantities.
P. S.—Mrs. N. thinks we had better advise our friends not to go off and leave the resin and wax while melting, for it might "boil over," and also, when on the hot stove, it might take fire, besides the mixture might get on divers household utensils and fabrics from which it is loth to quit its hold, unless some one like Novice, who has studied chemistry in his earlier years, should happen to be around to inform the "distracted feminines" that benzine dissolves the waxes and resins as readily as hot water dissolves sugar. Not that we have had any such trouble-oh, no—but then considerable trouble might happen in getting the "pesky stuff" off the stove before it takes fire and burns up the culinary department.

P. S. No. 2.—Novice, thinking it ought to have a good "bile," so that so much wouldn't stick to the barrels, left it and sauntered off to look at the grape vines; after he had concluded that it would take them until the middle of July to recover from the effects of last winter's severity sufficiently to present a good appearance for the photographs, his attention was called by the cries of the women and dense clouds of black smoke rolling quietly over the "simplicity" bee hives. Of course his "ehemistry" made everything all right, but Mrs. N. thinks practical experionce would give a more vivid impression of the "stickativeness" of equal parts of resin and wax than anything the books tell about.

I guess that the man who "raises moth worms" does it for the same reason that I try to make all the weed seeds in my garden spront and grow (by stirring the ground occasionally during warm weather whenever there is no crop on it) in order to get them large enough to see them, so that I may have the pleasure of killing them. Am I right?

When a swarm of becs have already enough honey to keep them till flowers bloom, how much honey or syrup should be fed daily to stimulate them to breed during March and April? Is it necessary to feed daily?

Joseph Sinton, Ithaca, N. Y.

If eggs of the moth retain vitality during the winter as seeds of weeds do, your plan would answer, but we think they do not, and that they only survive the winter that are in the combs with live bees. Will Prof. Cook tell us if we are correct?

Our "Editorial Corps" are divided in opinion as to whether feeding is of any benefit to stimulate brood rearing when a colony has plenty of stores. Novice says that when you want brood you must have pollen, that daily feeding is only a bother to both bees and owner.

#### CHEAP HIVES.

INCE first describing the cheap form of Langstroth hive in the American. Bee Journal, in our "Gleanings," many comments have appeared in regard to it, and most of them, we believe, take the ground that because it is cheap, it must necessarily be small and inefficient; we think our readers, however, have understood that by using two or more as may be needed all the room can be furnished that is required, and it can be done also simply and expeditionaly. For large simply and expeditionary. For large amounts of box honey it had better be made double width as we have explained before and this also admits of spreading the frames out horizontally. The covers in this case will be better, made of two, three, or even four boards; and instead of matching we would saw in the edges of the heards to be joined with the bury. the boards to be joined, with the buzz saw about half an inch, by raising the table to the proper highth, if the gnage be set properly, by reversing the board we can by two or three saw cuts make a nice groove 3-16 by 1 inch in debth. Now saw a strip from our & lumber 3-16 in thickness to be driven in the slot thus formed hetween the boards of the cover, and we have a joint much less liable to leak than the one formed of matched lumber.

The objection raised that the "Simplicity" or "dollar" hive is not ornamental we shall perhaps be obliged to admit, yet where they are painted some light color and grapevines be trained to shade cach one, as we have advised, we think them pretty enough. (They should always be painted and the color if not white should he light enough to prevent their absorbing too much of the heat of the sun in hot weather, as dark colors always do. With our arrangement of the apiary we should also have them all one color).

So many seem to think a projection of the cover necessary, and almost entirely on account of the "looks" that we will enumerate our reasons for preferring none. First and formost it would add considerably to the weight of each hive; and we particularly wish our hives for facility in handling to weigh not one ounce more than is absolutely necessary. Secondly, they would occupy more room, in the hause, in shipping (by wagon especially) or when piled away full of empty combs, or when put aside for any purpose until wanted. We presume most bee keepers have had experience in shipping hives or bees of the annoyance caused by the projecting covers "jostling" each other, knocking tops loose, etc., etc. Thirdly, the tendency to warp is much greater with the projection, and 'twould be quite difficult to "let the cover in" to the frame that holds it to "cross nail" as we do, and thus prevent the possibility of warping. Fourthly, the expense for projectious on fifty or one hundred hives is quite an

item, and further we should find it difficult to get boards of such width that a single one would make the cover as it does now easily, for either the Langstroth. Gallup, or American hives. Fifthly, we could not well have them made bottom and cover one and the same thing and so that the bevels fit exactly, close and tight, no matter how they are piled up, hives alone, covers alone, or both together.

We have just sent Mrs. Tupper an American hive made "Simplicity" fashion or rather a Simplicity hive made with frames just one foot square, and she writes us she is so well pleased with it that she has a man at work making twenty

like it.

This hive is even easier to make than the Langstroth because all the boards used are of one width, viz: 14\(^3\) inches finished, and cover and sides are of the same dimensions, so that we simply cut off from a board 1\(^5\) inches wide or about that, three pieces 16\(^5\) inches bong for sides and cover and two pieces 13\(^3\) inches for ends. Now make all to an equal width (14\(^3\)) and rabbet out ends of side pieces (frames in this hive go erosswise) and cut off strips to go around the cover with machine as described and illustrated in our March number.

Hinge the cover on one end and make the entrance on the same end, and we should advise having the entrance with this live fronting the south and let the bees go out directly under the grape vine trellis, thus giving them mobstructed flight even while we are making examin-

ation.

With a circular saw and power, and nice, well seasoned pine boards dressed just \(^2\) thick, we know of no nicer and more prefitable "fun" than making just such hives for \(^8\)1.00 each, but if you want really to enjoy it, please be careful in adjusting your guages and don't make mistakes. "Be sure you are right then go ahead." The above hive takes ten frames just 12 inches square outside dimensions, and when the hive is worked two story, if we have a prolific queen, it works beantifully, better than the "Gallup" hive to our notion, and we used both last senson, but we hope both Mrs. Tupper and Mr. Gallup will excuse us for disagreeing with them in preferring the standard Langstroth frame for rapid brood rearing. However, had we an apiary all of American hives, that is, frames one foot square, we presume we should use them so, but we would certainly transfer them if we had the old kind of frames which are still deeper.

So great is the inconvenience of using more than one sized frame that we have this present week transferred both our Gallup and American hives to our Langstroth frames; not that these hives did not do well, but that we were obliged ou their account to keep an extra extractor standing around. 'Tis true we might use one that would take any sized frame like

those now in market, but in our opinion this is a grievous error; worse, far worse than making heavy and unwieldy, hives, for the speed required to throw out the honey tells, even on superfluous ounces or fractions of an onnee.

As we have our apiary now, every comb goes nicely in our light extractor and we can work on, until a barrel is full, smoothly without being called on perhaps while a hive is left open, to get out another extractor or to lift up or strain honey, or any such "foolishness."

'Tis true we have one "copy" of the Quinby hive but this is not to be extract-

ed. Their combs are full and sealed, and one of our very best colonies is idling away their time preparatory to commencing in the thirty-two boxes; but as they were partly filled with comb last season. we hope to see them finished this, and the extra price of box honey will, we hope, make up for loss in quantity.

# NOVICE'S Cleanings in Bee Culture.

A. I. ROOT & CO.,

EDITORS AND PROPRIETORS.

## Published Monthly, at Medina, Ohio.

Terms: 75c. per Annum. Any one sending us 5 Subscribers can retain 75c, for their trouble, and in the same proportion for a larger number.

#### IPRINTED AT MEDINA COUNTY GAZETTE OFFICE.]

## Medina, July 1, 1873.

HAVE sold one barrel of honey for 15e. per pound.

We too are rejoicing now in eopious showers, but honey don't show more than three pounds per day yet.

In heads of grain No. 66 read "thorough bred" instead of "rough bred."

It seems to us that with our present facilities we can expect little from drones unless we can keep a strong colony rearing choice ones in large numbers and decapitate them in the balance of the hives, and even then, where common bees are kept coasiderably, it has seemed to us they were almost sure to "mix in." However Italians amst soon begin to preponderate (we hear they do in many localities), and then Italians will be the rule and blacks the exception. Rear all your queens persistently from one having the most desirable points; get your neighbors to do the same, and thoroughbred males will be sure to be the result.

Just before going to press Novice wishes us to add, that after many experiments he would extract from the upper story first, replacing combs as fast as emptied, keeping quilt over them if robbers trouble. When finished, let them remain until you have done the upper story to the next hive in the same way, this will secure most of the young bees out of the way, from the lower combs (see problem 5) and they are most difficult to brush off. As the upper story is lifted off when empty 'tis much easier, and we should use the quilt over the combs as fast as they are replaced.

If hives are far from the extractor a light frame of pine sticks covered with cloth to keep off robbers is convenient. Leave the top loose, except at one side, so it can be thrown over the combs, and spread a sheet of paper on the bottom to prevent honey dripping on the floor. We know of nothing to brush off the bees equal to a bunch of asparagus tops, make it two feet long and bushy enough so that when simply rolled in the haad it will "roll" off "hybrids" without provoking their anger.

Ir is amusing to read letters from Missouri and Tennessee, saying it is so wet that bees can gather no honey, when we are parched and dried up here with severe drouth. An unusual number of bees seem to have worn their wings ont, and we imagine it is beemise they are obliged to visit so many blossoms before getting a load. A friend who "bosses" the printing of this suggests that they "snapped their wings to pieces, they had got so dry," but bless you, he don't know.

Our index scales show a decrease in weight of from one to one and a half lbs. between 6 and 9 o'clock a. m., while the workers are going out. From this time until 12 or 2 p. m. they just about bring the index back to its former position in the morning, and about one pound is gained from this natil 5 or 6 p. m., between which time and dark it falls rapidly, making a total of perhaps 2½ or 3 pounds on an average. This is slow work and quite different from the proceedings of former seasons. As usual, the Italians do much the best, and our yield of honey is not far from 150 lbs, of very thick honey daily from our entire fifty six colonies. (One more actually played out in the month of June.)

## HEADS OF GRAIN FROM DIFFER-ENT FIELDS.

from you has hatched one queen, and she is a beauty. You do not advertise pure and fertile queens for sale; but what of it, can't you send a fellow one? The honey we are extracting now (white clever) is so thin that I fear it will sour. Do you use a Saccharometer to ascertain the degree of your honey? What degree will keep and what will not? Can you furnish me with one? I think Mrs. Tappor was very much mistaken when she said the extractor would injure the brood if properly used. Mine hatches all right.

N. E. Paextick, Castalia, O.

Thanks, Mr. P. We have very few reports of "eggs for hatching" that are encournging unless it be where they have

only been sent short distances.

Cool nights may have caused the Irouble, and we not only regret the disappointment it has caused but will make good the amount sent us when it has been a total failure if our friends will notify us of the fact.

Some have succeeded where comb has been sent considerable distances, and if we learn the secret of success invariably.

will try again all around.

No saccharometer is needed at all. Don't commence extracting until the honey is partially sealed, and no fear need be entertained of souring.

We have at this date (June 20th), nearly two barrels of the thickest honey we ever saw, probably on account of the ex-

treme dry weather.

No. 78.—I have two queens loft, one hybrid, with about a pint of workers, theother black, with less workers, Isn't this a glorious start for the first of June? Respectfully, R. J. McKer, Laingsburg, Mieb.

N. B.—You will think I write like an old acquaintance. Well, having taken the American Bee Journal several years, may I not claim as much?

Bless your heart, Mr. McKee, and all of the other unknown friends among our readers, nothing gives Novice greater pleasure (no, not even tons of honey) than to hear from friends that have followed him through successes and reverses for years, and to hear that he has assisted and made brighter the lives of others, is an additional stimulus toward further experiment. He begs us to add that your letters are all read with the greatest of interest even if they do most of them go unanswered. In the attempt to have them all unswered through this department, a pile has accumulated nearly sufficient for the rest of the year; yet we hope to get things in shape soon, that we may be able to give our opinion, at least, on all questions proposed, very shortly after they are received.

Bre Hive Cottage, Milton, Brisbane, Queensland, Australia, 79. March 22d, 1873. No. 79.

Dear Novice: "You will no doubt be a little surprised at hearing from the folks on this stranger even in this sunny dime. Your articles in the good old Journal have often cheered me up when I have been in a very low kee. However I tost sight of you for

two years after loaving England, and I began to think I should never see your name more. This is a splendid country for bees. No wintering here, the bees are on the wing all the year round. Tho bee is most certainly a native of the tropies. My observing hives are 2 and 3 feet square; containing only a single card of comb. I simply put a bar across the large frame to support the comb. The hives open on each side. I raise bundreds in them of quoons. The bees are never taken out; the winter, if it can be called winter, is not severe onough to kill bees even in a one comb glass hive, in fact we have no winter. We can raise queens and have thom tertilized at any time during the year. Do you want to know what I think of your new hive? Well, I have had timber cut for 200 of them, and intend to give it the following name: "Novice":" 'Hivk or Hives.'

J. Canach, Boo-Master to His Excellency The Marquis of Normandy.

Will our distant friend, if he does re-

Will our distant friend, if he does receive this number, please accept our thanks for his kind letter? Does he get honey the year round, too, and is the quantity per colony per annum after all much more than in our own land of frost, snow, rain and sunshine alternating? Verily, if Novice is going to be copied thus fur, it behooves him to tread carefully in new paths.

No. 80.—Friend Novico:—In upper stories of the Simplicity hivo, my bees fasten upper and lower frames together. I cut off all the comb between but it made no difference; can you tell a preventive. Also to make natural swarms as early as possible. Should I put on surplus frames as soon as the lower story is tilled or does it make no difference.

E. W. Poole, West Richfield, O.

We have more trouble in some cases than usual this season of comb being built be-tween upper and lower frames; we sup-pose because the honey has been procured so slowly they have been averse to building in the frames, but preferred to lengthen out cells near brood and to build between frames over the cluster. After they can be got to work strong in both stories they usually cease to trouble in this way. Putting surplus frames above generally delays swarming but not always. Obliging bees to swarm for want of room is at the expense of a considerable loss of honey that they might otherwise gather.

wise gather.

No. 81.—Don't the bottom board become waxed up so that they are unfit for tops? If so what is the use of making them just like the top? Would not a plain board with slats on the ends be just as good? How much would you bevel the hives? Your descriptions are not plain enough for many people. As you move the hive forward on the bottom board, the back end of the sides raises some, which will give a place for worms, unless the bees wax it up, which they will be sure to do. Have you used your style of bottom boards long enough to know how they work? I hope your hive will work all right, for I like its simplicity and its general plan. Yours,

LA FAYETTE NORRIS.

We should seldow use one that had

We should seldom use one that had done service as bottom board for cover, yet we would make them all alike to avoid having an extra different piece about the hives, for instance, we might have in our apinry more covers than bottoms, or the reverse, and in making hives we should be obliged to get out an extra set of stuff for bottoms. We have aimed at "simplic-ity" and brevity. It bevels are made with the simple tool given in Mnrch number, no trouble will be experienced from the causes mentioned and we certainly, at this date, have no cause to change our decision.

A FRIEND hands us a circular from N. C. Mitchell, 308 Race street, Cincinnati, O., from which we make the following extracts:

We gunrantee all onr students who come to our apiary and remain with us eight days—long enough to take sixteen lessons in bee enlture—can return to their homes and take from any good stand of bees they have, from one to three hundred dollars' worth of honey manually. There are some agents that can learn all, or enough to commence business, in two days, but all had better remain with us one week. No agent will be allowed to teach any one our mode of making artificial comb without our consent. They may sell hives and rights and everything else, but they must keep our mode of comb-making to themselves. The one that sends their money to us first is the lucky one.

Now if Mr. M. is equal to the task of managing an apiary of one hundred colonies, why don't he keep quiet and have an income of \$30,000 all himself? We presume he could make them produce the highest figures, of course. If that would be too selfish and he is willing to share his great discovery with the world, why does he charge forty dollars for just two days toition? (Our readers could all lenrn in two days if any body else could). Our Agricultural Colleges are certainly behind the times. Again, Mr. M. and several other ndvertisers should remember that there is no law by which any person can be prevented from tenching all they know if they choose, We don't know about our foreign friends, but we think our American Bee Journals are auxious to give every valuable process to their readers as soon as known, and the subscription paid entitles them to all, even if we "have spent days, months, and kundreds of dollars, to accomplish it," When we look over the old numbers of the National Bee Journal and notice the discoveries for artificial lertilization, etc., that would be sent for ten or twenty dollars and the queens that were to be given subscribers, we must confess to a feeling of doubt about who the "lucky" person will be. We have given Mr. M. the benefit of a free advertisement and propose to "help" all we can, if our readers will only send us all such circulars, emanating from any source whatever.

#### FROM ONE OF OUR FEMININE NOV-ICES,

" AM only a beginner. I commenced with one colony in 1871, in box hives, had three swarms; first one deenmped and third one froze: they were wintering on their summer stands. In 1872 I commenced with two colonies, had three swarms, one of which lost their queen two days after hiving. I stopped them np (till they became reconciled, giving them two frames of comb with eggs, larvae and brood of all ages) a few days, and felt sare they would rear a queen; did not examine them again till they begnn to decrease in number, when I found they had no queen, but one or more workers laying drone eggs. I examined them very carefully and know they had no queen. Now the query comes, why did they not rear a queen; first, there was a failure in honey at the time; secondly. the laying workers might have prevented their renring a queen. I have commenced using the Quinby hive and think it about as good as any. I obtnined sixty pounds of box honey the past senson; will entirely discard boxes in the future and use only an extension, or two story hive or both combined, so as to get the fall benefit of the extractor. Owing to the bad lnck, I have been forced to experiment with my bees this winter or lose my weak colonies. I commenced to winter them on their summer stands. Evanined them December 24th and found my strongest colony in n box hive nearly all smothered and frozen for want of ventilation, the queen among the number. I obtained a queen from a swarm found in the woods, which was also nearly all frozen, being apparently dend, but after careful warming two or three hours the queen revived with a few bees: they were introduced to the queenless hive; making probably a pint of bees in ull. They are now in the family room with another very weak colony that I have been feeding since that time. Both are doing well February 6th, and have commenced breeding. Noise does not disturb them in the lenst but the light does very considerably.

They become restless and uneasy when too hot or too cold. When I commenced bee-keeping I hardly knew a queen from a drone; consequently failed to make it pay, not realizing one-fourth the amount which I might have done. This set me to thinking how I might succeed better; so I began to post up in Apientane. I got Quinby's Bee Book, Colman's Rural World, North American Bee Journal, A. F. Moon's Forty Years' Experience, and, lastly, Novice's "Gleanings," which, I hope, will be the best of them all, and think it fills a very important place. We need some one to criticise and expose the various hambugs. I intend to get everything else that I can on apienture, hoping that by diligence and perseverance I

may yet succeed and turn the past experience to a good account at last. In conclusion I would say to every beginner, post up, and thoroughly, too; get one or more of the best fext books published, also one or more of the hest bee journals. Remember that knowledge is power, and with this and proper care you will succeed.

Annie Larch, Ashland, Mo.

As to wby bees at times refuse to rear queens from brood, it is hard to decide. In some of our earlier experiments this was often the case, yet for some reason or other we have no such failures now. We have known a queen with bad wings to prevent cells being started time and again, and thus threaten the ruin of the colony until she was hunted out and killed. Miss Annie's example of perseverence is quite commendable, and well may she add "knowledge is power" in beekeeping. By the way, we imagine her sex is as fond of power—i. c., the power to command success—as the "lords of creation, even.

## A GOOD WAY TO HIVE A SWARM.

Quinby queen-yard to the hive, and when they swarm the queen will usually be found moving about on the bottom of the queen-yard. Sometimes she will be surrounded by a cluster of bees. Cage the queen and place her at the entrance of the new hive, which must be placed as near the other as convenient. When the swarm is all out, lay a cloth over the queen-yard to prevent the bees from returning to the old hive, which you can place where you wish to have it remain, and liberate the queen. J. Plaatt, Mallet Creek, Medina Co., O.

Quinby's queen-yards for an apiary of fifty hives or more would be quite an expense, and still more of a bother, it seems to us. If the ground is kept elem around the hive, as we have directed, the queen can be found generally with little trouble, without a queen-yard or anything of the kind.

HIVES, Extractors, etc., etc., can, of course be sent cheaper as freight, but many do not seem to recognize that it is quite uncertain as far as time of transitis concerned. For instance, we should expect to get a bee hive from New York by express in at least three days, but if we ordered it sent as freight it might come in a week, but if it should take three weeks we should think it nothing very strange. Either way is safe, although we must expect that goods by the latter way may be exposed to rough handling and rough weather too, perhaps, and so they should be more carefully packed.

Where there is no immediate need of the articles, and they exceed 20 or 25 lbs. in weight, we should advise via freight

## SHALL WE EXTRACT FROM THE BROOD COMBS?

entire National Convention fell into a grievous error in supposing the extractor injured the brood, admits of no question, but Mrs. T's further suggestion that nothing be gained by extracting combs containing brood is a point that might be considered. A case to the point has just occurred during the late dry weather.

Our index scales have shown a daily increase of two or two and a half lbs. per day, and Novice argued that spreading the combs by placing an empty one between them would secure all the honey until they were storing in the upper stories.

Recollect we were so fortunate as to have plenty of extra combs which is not always the ease, but "P. G." strongly insisted that the better way was to go "right through" and extract them all in regular order or at least to commence in that way and stop whenever it seemed advisable. The result was that we obtained nearly two barrels as has been stated elsewhere and the brood combs were found so filled with honey that it was utterly impossible for the queen to deposit eggs with any kind of convenience, for even the empty combs placed in the middle were generally filled with honey and pollen.

The honey was found principally in bulged or lengthened cells around near the brood, and had evidently been stored and capped in a manner that was certainly poorer economy of both wax and labor than would bave been the case had it been stored over the surface of whole combs. That the latter result can be secured, was shown by two hives that had been extracted about a week previously, and further still the index scales showed a gain of three and three-fourth lbs, instead of two the day after they had been extracted. Was not "P. G." right?

Again our friend G. W. Dean of River Styx this county, contends that a single story Gallup hive of eighteen frames will give as much surplus honey as two or more stories, and were it not for the fact that Mr. D. gets about as much honey per hive as any of us, we might feel surer that he had gone to another extreme. In 1870 he took 900 lbs. from the six hives that comprised his apiary, besides making several artificial swarms. He obliges his bees to build all worker combs by removing their brood to weaker hives when they try to build drone comb, and altogether he gets a fine lot of honey with but few, simple appliances and little labor; and now we have just got to the point, for he gets all his honey stored around the hrood and makes it a point to have brood in every frame during the honey harvest.

Mrs. Tupper speaks of natural swarming at times when the bees were not storing honey or as she expresses it "when there is literally no honey to be expect-

ed." (See Bee Keepers Magazine for

May.)

Unless the hive bad been previously filled from an abundant yield, we cannot remember that we have ever had a ease of natural swarming under the e ircumstances mentioned, and think at least they are unusual, yet we have seen eolonies after they had got the swarming fever, that swarmed when every other frame was an empty one, and in one ease they swarmed with the combs spread over an area of several feet outside the hive while we were extracting.

Now we still think that had their combs been faithfully emptied with the extractor as a preventive, they would never have had this swarming fever; however, Mrs. Tupper should know best for she has had much more experience with natural natural swarming, we presume, than we have, for our experience has been mainly with bees that were not allowed to swarm.

Is there any danger of getting brood chilled so as to destroy it while transferring? It seems to me there might be although I think I have never seen any thing in print to that effect. A Subsermer.

We have never had brood chilled in transferring, but have known unsealed brood to chill when combs were lifted to the upper story too early in the season, but this only occurred when the nights were so cool as to be slightly frosty, causing the bees to desert the combs and go below. We have made no accurate experiment, but think brood could be kept out of the hive a short time, say a couple of hours, with a temperature as low as 40° and in warm weather, say from 60° to 80° brood will keep scaled up safely until it is hatched. Unscaled larvae would of course need feeding, but where well supplied with food, they will keep alive one day and in some eases two days, and we think very small larvac just hatched from the egg may be our best way of mailing comb for queen rearing, for short distances.

Ir has been observed, probably, that we advised bars of folded tin instead of wire cloth for our extractor. Further experiment satisfies us that tinned wire cloth is better, (as it mars combs less) which can be laid against the tin strips and fastened by folding the ends over the top and bottom bars. Wire cloth should be about five meshes to the inch of small wire. We can furnish the proper kind, both sheets, by mail for 25c., and the same will be sent without charge to all those having purchased Extractors of us, on applica-

ADVERTISEMENTS and Problems growded out this month, as you see.

#### NOTICE.

There are any goods in this case that do not give extree satisfaction in every respect, you will do us a great favor by returning them at our expense.

We are so well pleased with the above which came a few days ago in a box of goods from a first class business house in New York—that we have copied it here, and it expresses our sentiments exactly, only we should end the sentence by saying "tell us wherein we do not meet your approval."

We have abundance of complimentary

letters in regard to our "Gleanings, which we forbear publishing because of native modesty," for one thing, and that "native modesty," for one thing, and that we can't see how such letters really assist our readers with their bees, for another; besides every one can see for themselves whether our paper is of value to them. Now the point is, we have had too few criticisms; we don't believe all are pleased with us, and those are the ones we should like to hear from. The same might apply to the simple hive we have recommended, and objections and even abuse has come quite freely from some sources, but none from those who have made and tried them. We are quite auxious to hear that the plan of making and using hives pleases others as it does us, and if it don't. wherein lies the trouble? but we do not value criticism from those who have never seen the article criticised.

We are glad to learn that many of our friends have rigged up saws and are doing a good work in making hives for them-selves and neighbors. To aid our friends who wish to set up in the business, we copy a neat little circular received a few

days ago:

Dickinson Parsonage, Spring of 1873. To my fellow bee keepers in Cumber-land Valley, I offer a superior Movable-Comb Hive at about the price of the common box or chamber one. The box is of the style used and recommended by A. I. Medina, O., -one of our most successful Apiarians, and whose articles in the American Bee Journal, over the signature of "Novice" have done so much to simplify and popularize the whole business of Apienlture,—and well deserves the name it has received, "Simplicity Hive." Having built a buzz saw expressly for the cutting of this hive, I can sell it at a price much below the cost of production "by hand." Terms—"Trust" till September: then \$3 cash paid by you, for the hive, or \$3 paid to you for the bees-A. S. WOODBURN, as you prefer. Dickinson, Cumberland Co., Pa.

## HONEY COLUMN.

WO barrels extra thick white clover honey, for which we want 15c. per b. In quantities of 5 lbs. or less, 20c. per ib. If we can't get that price, we are firmly resolved to keep it "forever and ever."

A. I. Root & Co.



Or how to Realize the Most Money with the Smallest Expenditure of Capital and Labor in the Care of Bees, Rationally Considered.

#### PUBLISHED MONTHLY.

Vol. I.

MEDINA, O., AUG. 1, 1873.

No. 8.

#### STARTING AN APIARY.

No. 8.

ceeded in extracting all the honey that has been gathered, satisfactorily to themselves at least, thus far, we shall recommend now that steps be taken at once to rear queens. (We are presuming these remarks will reach you about Aug. 1st.) Whether we rear queens to replace those not sufficiently prolific or for making new colonies, we want just the rery best we can have, and in giving directions for so doing we shall confine ourselves to such processes as are least likely to fail, and have been fully tested.

In the first place assuming that among bees "like produces like," we would ask every one of our readers to mentally decide which is his very best queen, i. e., which one invariably fills her hive with brood early in the season and as surely gives you a large yield of honey. At the same time we would have this progeny show the three yellow bands as an indication of Italian blood if possible, yet bearing in mind that when we are obliged to select stock to rear queens from our own apiary, we should consider it better to rear from a very prolific queen not pure, than to use a queen producing very light colored hees though ret very prolific

colored bees though not very prolifie.

This advice may be qualified somewhat by those who very much fear stings, but as we are to "make the most money" at all hazards, we shall have to make stings a secondary consideration, and rest assured that you will all in time learn to fear stings but little. If you are so fortunate as to have a queen, very prolific, producing three banded bees, and these of a quiet disposition, too, consider her worth \$25.00 at least, for we have found such queens quite rare; our most prolific ones oftenest produce cross hybrids. During poor seasons we welieve the full blood Italians invariably gather more honey according to their number than the hybrids, and to conclude we should dislike to rear many queens from a queen that we had not previously tested our

selves. We would have an imported queen if we could afford it, because we should then be sure of having a pure nother, but did she not prove prolific we should use some other, perhaps one of her daughters.

Having carefully decided on your best colony, we now wish you to point out your least profitable, in all points enumerated, i. c. diametrically the opposite of

your best.

If your apiary contains fifty hives or more you can probably find one so poor that her head had better be taken off at once, no matter if she is pure Italian. Some, we are sorry to say, knowingly sell such queens, thereby doing much to deteriorate the reputation of the Italians, for all such stocks are sure to die out under the old order of things and are consequently never or rarely permitted to reproduce themselves. We should be very eareful that we do not subvert nature by carefully nursing unprolific queens that would otherwise die before they could have a chance of perpetuating their poor qualities, simply because they produce three banded workers.

Assuming that introducing queens is always risky (we shall treat this subject in fature) we will avoid the necessity of so doing by "swapping" all the brood combs of our first mentioned colony for an equal number from the latter. This should give us at this senson of the year from fifteen to twenty queen cells, and you are to count them earefully in just one week from the date of making the exchange.

Now if you have in you apiary so many queens that are not good ones, remove and destroy them the same day that the cells are counted. A very plain test of what we call a "good queen" is to destroy all that are not working in an upper story at this date, presuming that had there been no more than a pint of bees April 1st, she should before Aug. 1st have made a good colony, and if she has not done this we would throw her away and try another. In two days more or in nine days from the time our cells were started we will insert a cell in each of the queenless colonies, and to avoid as far as

may be, having it torn down, we would insert it in place of some one that the bees have started during the two days. For a simple mark to designate which hives we have made queenless we slip a grape leaf partly under the cover of the hive and the leaf is left there until the young queens are found to be laying, which we find to be in from six to twelve days after insertion of the cell. It may be objected that much time is lost in keeping a colony queenless thus long, but it is at a season of the year when more brood is generally of little account and the time is not greater, many times, than would be consumed in introducing a queen, besides, our cells are built and queens are batched in full cotonies, points which although they may not be absolutely necessary at all times, are certainly safe for "Novices." If your object be increase of stock, having queens already good, proceed for cells as before. Have your new hives, trellises, sawdust, etc., arranged before hand and in place of removing queens take two combs, one of honey and one of brood hatching out, from each colony that can spare a swarm, put these with all adhering bees (but not the old queen) into the new hive and cover the top and sides of these combs with the quilt, insert cells as before and when the young queens are laying give them combs enough (without bees) from any old colonies to fill out the These combs should be mostly brood combs, and thus we shall have full colonies at once equal to any of the old ones, and indeed, if the season continue, in a few days these new colonies can spare a comb or two for other new ones, but we should avoid having frames only partly filled in the hives for wintering.

Remember if we are going to try and winter all colonies without loss, they must he all good so far as combs and bees are concerned and most of all, a good queen. No matter about the honey so they don't starve before September for we wish to take it all away then.

Above all things don't let robbers have any hand in the business, whenever they get very bad you had better stop. "Novice" says you had better stop whenever they get so had that a bee veil is necessary, but "P. G." doesn't quite agree to that, yet she is getting a "way," this season of working about among the bees without any covering at all for the head, and with apparently the greatest unconcern. Even sting in the month" isn't the "terrible affair" now, that it used to be, and the swelling instead of lasting two or three days now lasts but a few hours.

By the way, dear readers, we will impart a great secret if you'll promise never to tell any one else, for it is worth a great many dollars (more or less). a perfect preventive of robbers and you may open hives, leave them open, leave combs all around the apiary, and be as free from annoyance as if on a desert and "nary" hee to bother. If it don't do

all we claim, money will be refunded. This is for our unfortunate friends who don't have fall pasturage. Well! Ahem! Extract the honey or whatever other work you may wish during warm, moonlight evenings. You will need to use considerable smoke to subdue the bees at first, and you will have to be eareful of Unless you are luntern if you use one. Unless you are lunting queens, etc., you can learn to do very well by "moonlight alone." (We mean "only;" "'tain't good" to be "alone.")

P. S.—Mrs. "N." says if she is expected to be assistant, she prefers some other

'post" than holding the lamp.

P. S. No. 2.-We would advise all who feel disposed, to try the queen nurseries, but can only add that our opinion remains unchanged, viz: that to rear the best queens we would prefer that they have the full run of the hive as soon as hatched. Unfertile queens, we are inclined to think, would be of as little use to "Novas they are to strange bees, and we have found them very uncertain property, to say the least. We have succeeded well in making new colonies, as follows: Cut out your cells and place them in the nursery, with bees or without, it don't matter. A lot of queens cages fastened or suspended in a frame make a nursery; if pasturage is not abundant, some provision should be made in one end of eage for the queen to feed herself. Hang the frame, cages, cells and all in the middle of a populous colony; remove the empty cells as soon as the queen is hatched to give her more room, and as soon as you can thereafter, release her among the bees on one of the frames of comb removed from the hive. Place this comb, bees, queen and all, between two combs of hatching brood from other bives, in a new hive and on a new stand. When she lays, fill up as before. You thus save some time and are not obliged to make your swarm until your queens are hatched and approved of. If you have more than ten or dozen cells a large colony will be required to give bees enough to each queen. It may not injure young queens to be kept eaged several days, yet we do not feel satisfied that such a course is advisable.

Ir your income from bees has been small, make your expenses in that direction correspondingly so. Many times 'tis hard to come down to rigid economy, but it generally "does a body good" after all.

Tis very bad economy to feed bees all winter and then have them die. Let us all resolve to attempt to winter no more stocks than we can probably take through. If all are now agreed that sugar for winter is as safe as honey, nothing will be lost but our time, in giving it a further trial, for the honey sells for the most.

### INTRODUCTION OF QUEENS,

S many infalliable plans have been given for introducing queens perhaps, as for any other operation in Bee Culture, yet the great number of complaints that are continually being made of humiliating failures, seem to indicate success by no means certain with any one plan. Several points require consideration in the matter; for instance, we can allord to run some risk of losing a queen occasionally, rather than to consume the amount of time required for some of the methods given, such as eaging the queen or keeping the colony queenless until all brood is hatched, or letting one of the cells hatch and then destroying the young queen after she has torn down the rest of the cells, and before she has become fertile.

We think Mr. Quinby favors one, or both of these processes, and it is true that queens will often be received this way when quicker methods fail, but as the danger of having queens die in the cage when they have been some time confined, is eonsiderable, we cannot think it much advantage after all. We cannot think any of the plans invariably safe, such as scenting bees and queens with peppermint, to-bacco, etc., for a queen is often well treated for a few hours and then attacked and stung, In mid-summer confining the queen on combs of hatching brood without bees, is probably as safe a plan as any, and will do very well for a queen of considerable value, but as we must generally make a new colony to do this, and it takes considerable time, we think it can-not come into general favor, besides it is next to impossible to do this except in

very warm weather. Mr. Langstroth's plan is the one we think best, all things considered, and we shall make no additions to his directions only to say that no exact time can be givon as to when the queen shall be liberated. In warm weather, during a yield of honey they can almost always be uneaged in about twenty-four hours, and we have sometimes succeeded perfectly in releasing the queen at once, without caging at all. We would strongly recommend Novices to experiment with queens of no value until they learn to judge by the behaviour of the bees when danger may be expected. Queens are more often "hugged to death" than string, and where they have been released after being eaged but a short time, or when the queen is very valuable we should always examine the hive after an honr or so, and again after a lapse of several hours. In early spring, or after fall pusturage has eeased, queens are most difficult to introduce; at the latter season we sometimes have them killed even after they have filled several combs with eggs, so we think it best to attend to all such work as early in the fall as is practicable. do not favor stopping the eage with cloth, paper wet with honey, comb compressed

in the hands, or any such means, because we wish to see the bees when the queen is set free. When they first become aware of the fact that they are queenless, the cage of the strange queen is generally densely covered with bees, sometimes knotted so closelythat they can hardly be pulled apart; but if the wire cloth of which the eage is made, is of a mesh not less than ten strands to the inch, no danger need be apprehended to the queen. The knotted bees often make a buzzing sound, and it is never safe to release the queen before this buzzing has ceased, even if they keep it up for four days or a week, as we have sometimes known them to do. When she can be released safely, but few bees should be seen on the cage and these not excited and angry. Slip out the wad of paper that confines her as quietly as possible, and earefully note appearances. If they offer her food which she partakes of quietly, all is well, probably; but if they crowd after her and grasp her as they would a robber, pick her up with your fingers earefully and recage her. If a bee attempts to sting her while in your hands, you had better crush him; some smoke here is quite serviceable, and if you should get stung yourself, dont make a fuss about it until your queen is safely eaged. keep her eaged until toward sunset the next day and try again. Sometimes it is best to destroy all queen cells after three or four days, if they "don't behave;" also removing all their brood, "does good" at times. If that wont do, take their combs away, and when you can't get them to have any queen unless they rear it from a cell of their own, console yourself with the idea that you are no worse off than some other folks have been occasionally.

If you wish to become an expert in such matters keep practicing; learn the conditions necessary for being able to take a frame of brood bees and all from one hive and place it in another without fighting. The matter is very easy, when the bees are in the proper mood, and it expedites work greatly, such as giving a colony choice brood wherewith to rear a queen and strengthening them up in numbers at the same time.

Bees are wonderfully tractable and yield to our wishes with the greatest good nature when we have learned just where and how they may be "imposed upon" with impunity.

If we have decided to winter our bees on sugar syrup instead of honey, the only question remaining is, whether they have bees enough and a good queen, i. e. one that has proved herself prolific; and not whether they have stores sufficient.

SEND us all the circulars pertaining to bee culture you can, if you have reason to think they contain misrepresentations.

# NOVICE'S Glenniugs in Bee Gulture.

## A. I. ROOT & CO.,

EDITORS AND PROPRIETORS.

## Published Monthly, at Medina, Ohio.

Terms: 75c. per Annum. Any one sending us 5 Subscribers can retain 75c, for their trouble, and in the same proportion for a larger number.

## (PRINTED AT MEDINA COUNTY GAZETTE OFFICE.)

Medina, Aug. 1, 1873.

OUR Quinby hive has again lots of bees but "nary" box honey.

Ix preparing to introduce Queens, rearember that a hive sometimes contains

Doleful. Novice's basswood Orchard is being eaten up by the Grasshoppers, but he declares "there'll be blood shed" before they finish. If grasshoppers made honey what to as of it our county might farnish.

A. T. WRIGHT Chicago Ills, sells a very small pamphlet, recommending his patent hive, for 25c. He not only endorses sugar syrup for wintering but leaves Novice far in the shade in directing that it be fed to bees to produce nice box honey profitably. Nice looking comb honey can be produced it is true as our experiments ia feeding last fall gave us ample proof, but in taste 'tis sugar syrup still, and worst of all 'twould cost a dollar a pound or more. It may be right for Mr. Wright to charge people for a "right" to make his closed frame "Coming Hive," but we don't think it right to charge 25e for the book. We Beekeepers work hard for our "25 centses" Mr. W.

#### HONEY COLUMN.

H. SHANE, Chatham Center, 9 Center, Medina county, O., has 3000 lbs. nice clover honey, wants 16 cents for it.

I have 2000 lbs. (4 bbls.) of first-class extracted honey for sale at 18 cents. Barrels not to be returned.

R. WILKIN, Cudiz, Ohio.

We have about 1500 lbs, for which we want 16 cents. ("Ruised one cent, 'cause honey's scarce.")

A. I. ROOT & Co.

## ITALIAN QUEENS FOR \$1,00.

N our prospectus for "Gleanings," we mentioned that we should endeavor to test all improved processes before recommending them, but the very plain state-ments made in regard to sending eggs successfully by mail induced us to deviate so far as we did. The result, as we have found it, is that eggs may hatch and produce good queens when sent short distances only, but we have in no case known them to retain any vitality when two or more days were occupied in transit. Now, as we wish to make amends as far as we can for the disappointment, we will credit the parties who sent us money for eggs, the amount on something else, or will return the money if they prefer, providing the eggs were properly eared for as soon as received, and produced no brood.

Novice was so unwilling to abandon his project of furnishing Italian stock to the mass of bee-keepers at a small expense, that he could not give it up; accordingly on the 23d of July he rode about twenty-five miles on horseback visiting neighboring apiaries, with the follow-

ing result:

We, whose names are placed below, will, after Aug. 1st, furaish Italian queens untested and unwarranted for \$1.00 each, for the balance of the season. Queens will be reared from the choicest mothers we can procure, and will be shipped by express as soon as they commence laying.

J. Shaw & Sox, Chatham Center, Medi-

na Co., O.

W. H. Shane, Chatham Center, Medina Co., O.

E. D. Parsons, Lodi, Medina Co., O.

1. E. Daniels, Lodi, Medina Co., O.
A. I. Root & Co., Medina, O.
In regard to chances of the queens meeting impure drones, we would say that Messrs. Shaw, Daniels and Parsons have almost no black bees in their localities, and their apiaries comprise over two lundred colonics of choice Italiaus. Mr. Shane has not more than half a dozen black colonies in range of his apiary, and agrees to have these all Italianized if he has to do it entirely at his own expense.

As for our own apiary (we have now but few black colonies in our own neighborhood) we are diligently at work weediag out all inferior queens, and as we propose to rear all queens from a well tested queen, ours will be—well, good hybrids, the worst of them. Those from the first mentioned apiary, we think, will be nearly all pure. As the Postmaster General has decided that bees are not mailable, we recommend that queens be sent only by express, and many queen breeders think it much the best mode of transit for the future welfare of the queens. In ease more orders are received than can be filled this season, the money will be returned. To have least trouble in introducing, orders should be sent as early as possible.

#### OUR PHOTOGRAPHS, AND A CHAT WITH OUR READERS,

FTER waiting until the 17th of July for our grape vines to get "presentable," we now respectfully offer a view of "our home" to our friends, with the sincere wish that it may be of value to them, as the place wherein our "successes and reverses" of the past seven years have heen made in the science of bee enlture. In front of the bee louse door, Mrs. N. appears so intent on having the "blue eyed baby" deport herself properly that she doesn't consider bee culture very unneh, and, in fact, in one of the best of the negatives, the Lombard plum tree in the fore-ground obscures her face entirely, which she excuses by saying, aforesaid baby had pulled her sun bonnet over her eyes and she was assisting her to extricate herself, for like all habits, she wanted "to see the whole performance." Miss Mand, and Master Ernest, (Novice Jr.,) of ages nine and eleven, stand at her left, and have demanded so much attention in time past in the endeavor to have their young ideas "shoot" properly, that Mrs. N. has never been, practically, much of an apiarist: besides, Novice has never yet succeeded in persuading her to get stung ouee every day during the season, or oftener, that she may get over the "dire effects" that follow from being stung only

"P. G." appears on the left of the picture and insists on being passed by without "note or comment," trusting that she may be able to assist in the cause of bee culture notwithstanding. Novice is so well known that nothing need be said of him, and in fact it is the apiary rather than the dramatis persona with which

we have most to do.

To digress a little: 'Twas lmt yesterday we visited the apinry of one of our sub-scribers who we hope will pardon us when he sees this. As he was away we tuok notes as follows: A very serviceable bee house had been built, but we did not go inside; around its door, some near, some more remote, were scattered hives of diverse sizes, shapes and colors. We believe none stood square east and west, or north and south, and we remember none that were perpendicular; a few con-tained bees, but more, none; those that did were so covered with grass and weeds that the poor little forlorn looking black fellows had to dodge and twist to get out or in. Many of the hives were made with much care and skill, but we fear our friend had become discouraged. Ameriean hives lay around all sides up, and the movable side seemed always anywhere but in place, whether they contained bees or not. A fine looking new hive made something on the "Adair idea," revealed when the eover was raised, nothing but a heap of dead bees and some shreds of moth-eaten comb. And this was the 24th of July.

How many of our readers have disearded or empty hives lying around; and we wonder, too, if they have ever resolved to waste no money or time on new fixtures and experiments?

Our friend's apiary certainly was not a pleasant place, and we fear he had avoided it for that reason, and because the sea-

soa for honey here is very poor.

Now this is nothing new—it is almost an old story in bee-keeping—and we recognized it when we took up bee-enlure. The plan of our apiary has been changed many times since we started it, and the hives have been changed, too, when 'twould have have been better to have "let well enough alone."

About five years ago we recognized the value of shade in the hottest weather, and planted sixty Concord grape-vines. They were planted according to "Puller on the Grape," and the trellises were made as he directs. The vines did finely, but the arrangement of trellises, which can still be seen in the foreground of the pieture, made rapid work with the hives very inconvenient; also eight feet between trellisses was farther than was needed between the hives, and so caused useless steps. With the present arrangement work is much facilitated, and we have as yet found no inconvenience from hives being too close. Each hive has a precise place assigned it, and the simplicity hive can be leveled up with a spirit level if desired. As but little ground is occupied, but little labor is requisite to keep it clean and free from weeds, which we think most important, for then rubbish is more apparent and you will be more likely to keep it gathered up. We first used the Lang-stroth, but soon was led to think the frames difficult of removal, and so made fifty American hives, besides trying a great variety of patent hives. Every frame now goes nicely in every hive in our apiary, we are happy to say. On the right of the picture may be seen our "spring balance," which suspends a moderate c lony. So far we have not had more than two weeks that the hand on the dial has shown increase this season, and now it is going the "wrong way" at a rate that admonishes us to see that there be no colonies that may need feeding, for starvation may happen even in July and August.

In front of the "balance" may be seen one of the open sections of the "dollar hive," and we feel more than ever satisfied that nothing, more cumbrons is ever needed in the shape of a bee hive; as to whether their appearance is so "very homely," can be indged from the row of them on the left. It will be observed that our old style Langstroth hive shows a back ventilator, these we have thought, from the experience of late years to be worse than useless and so have fastened them up permanently. If they are opened in

hot weather they are soon used for an entrance and then cannot be closed again without loss of bees. Covering with wire eloth will not do for they will be soon covered with propolis. If all ventilation be given in front, as in the "dollar hive" it can be enlarged to any extent and then contracted without annoyance to the bees. The door in full view contains no window and perhaps one window may answer yet there are times when two might be better. We prefer windows in the doors, for then they are closed dark when the inner doors are in place in winter; besides if bees collect on the windows they are off at once when the door is opened. The hoc and spade left standing by the door are favorite implements with "Novice" especially this season, for many of our trellisses under the new arrangement were left "vineless;" these we find can be rapidly filled up by simply burying a long, growing shoot, an inch or more, under the ground and then bringing it up where wanted; these green canes take root in a few days. One thrifty Concord vine will make a dozen or more good, strong vines in a season. We have several such shoots that have covered a trellis with heavy foliage already. The "railroad" and car is but dimly visible through the foliage, and the extractor we hope will assist those who could not "make it out," even if it be but a distant view. The "camp chair" in the vicinity of "Novice," might suggest "taking things easy," but we believe he seldom uses it only on the Sabbath.

We would say, in conclusion, that no great amount of time has been expended, as some might suppose, for it has been mostly done at odd times, before breakfast, after supper, etc., and instead of being a task most of the work has been

but a pleasant recreation.

P. S.—Of course our bees don't sting when they are well treated. ("It's a story." "P. G.") Mrs. "N." and the children wouldn't be there if they did, for they don't "take to stings" don't "take to stings.

### CAUSE OF DYSENTERY.

Y bees, twenty-four stocks, wintered on their summer stands, all healthy, but not strong in numbers as usual at the opening of spring, but some recruited. Their stores was almost exclusively honey dew. And now when I tell you I have been a bee keeper since 1863, in localities where this source of supply is often very abundant, and that I have kept on an avfrom twenty to eighty stocks a season, and that I have never lost a colony of bees from dysentery, or any other disease that I know of, you will not think strange that I cannot indorse all the complaints laid to its charge. I have little however to say in its favor, except that it usually appears about this season, when in this locality, where we have neither white

clover nor linden, but often as is the case this season, would have a hard season without it; it keeps the bees breeding and helps out wonderfully until the summer and fall flowers come, from which our surplus is principally gathered.

E. K. Gird,

Appleton City, St. Ctair Co., Mo. That honey dew was not the only cause of dysentery, we have had ample proof, and we are glad to learn further that bees sometimes thrive on it. Every additional fact furnished will help determine just how food acts in this matter, for that food is at the bottom of the whole trouble, few now feel inclined to doubt.

#### PROBLEMS.

O. 11.—Queen's cells after being sealed, it is said, will hatch as well anywhere else as in the hive, if the temperature be right. What temperature is right? "Can't we send 'em by mail?" suggests Novice; but "P. G." says not, for they must not be "bumped" or roughly handled. Again, are all the requisites for extra queens dependent on the treatment of the larvae before sealing the cell, is there no development that requires full liberty, air, exercise, etc., after hatching? We dwell on this unduly, perhaps, but firmly believe that extra prolific queens are the secret of large yields of honey.

No. 15. In some localities our hees are in the habit of invading Groceries and t'onfectioneries etc. in the fall. Now is there any way to keep them busy so they will not annoy our neighbors i. e. ean we feed them in any way that will not ineite robbing? We know of one ease where this was done accidentally as follows:

Quite a quantity of honey was hung up in a wood house in frames, and of course the bees began to carry it away, but for some unaecountable reason no robbing ensued. They worked at the honey until fruit trees blossomed, then abandoned it; commenced again after they were gone, and so on; yet there was no robbing at all. In this case it seems the abundance of the plunder made them think it was natural stores, but we have in vain tried to produce a similar result. We should like facts on the subject but would advise eautious experiments or it might result in a "big row" and disgust a whole neighbor-hood with bees and Beekcepers. The case mentioned was in Mr. Shaw's Apiary, alluded to elsewhere, and the bees were Italians. We are afraid t'would'nt work with black and hybrids.

No. 16 Has any one ever wintered a colony absolutely without pollen and did they rear brood successfully?

## HEADS OF GRAIN FROM DIFFER-ENT FIELDS.

profile wax being scarce I used my grafting wax (Downings receipt 3 of beeswax, 3 of resin, 2 of tallew,) for my barrels, which makes a teugher wax, less liable to crack and melts easier than wax alone. Mrs. Tuppor was certainly wrong when she said that the extractor injured the young bees, my little girl turned so fast as to throw some worms ont, and yet the balance hatched out quite satisfactory. You have left us "greenherns" in a complete muddle about the best way of extracting. It is well I had got through before your July No. came to hand or clse "P. G." would have scared me out. The only advice I can give is to get your extractor as near the hive as possible and then go it. J. B. Tewnley, Red llill, Va.

We don't know why grafting wax is not just the thing for barrels. We are very

just the thing for barrels. We are very glad that Mr. T. found no trouble from robbers in using his extractor close to the hive. We have this season had no day as yet that the yield of honey was great enough to induce them to behave so well. If each hive gave 30 or 40 lbs. of honey, as they should, Mr. T. would have to stop so often to carry in his honey that 'twould be a bother; and if he carried a barrel along, too, he would need Mr. Blakeslee's "ear and tent". If his hives were none of them more than twentyfour feet from his bee house door, as ours are, would be not think it cheapest to have his extractor a fixture, implements stationary, and carry in the combs and return them?

return them?

No. 83.—I am going to ask a great favor of you, heaving that you will take the time to grant it. My cellar is not right somehow to keep my bees in. They mould and get damp, although we call it a dry cellar, and I have nade up my mind that if yeu would take the time and give me written instructions just how to build a bee house that would accommodate 100 celonies and have it so that I can use it in the summer to extract hency in. I would repay you in some manner sufficiently to satisfy you. I want descriptions or specifications very minute and plain, so that a common carpenter and joiner could not err in building the same. I have undoubted confidence in you with regard to this building. We have long, cold winters here.

Martin II. Adams, Port Ann, N. Y.

It is a pleasure for us to be able to as-

It is a pleasure for us to be able to assist our subscribers in any way, and the subscription paid for 'Gleanings' entitles all, to all the information we are able to give on the subject of bee culture. Were we to build again, we should make out a bill for lumber as follows. See plan of the bee and honey house in April number:

52 pieces for joists and studding, 2x12 juches and 10½ feet long. These are to be nailed together so as to form thirteen frames, 101 feet square. The ends may be simply lapped at the corners on all except the two frames that are at the ends of the building. These should be let into each other so as to have the corner studs and outer floor joists flush with the outside of the building. This makes our joists for the floor and overhead and for the studding only one foot apart; but we think this none too near when we consider the barrels of honey that are to be

rolled on the floor, and the necessity of holding our packing so it will not sift

Mr. Washburn remarks that 1½x12 stuff would do equally well for the studding and overhead, and we think he is right; for when boarded tight on both sides such a frame is very strong.

Your carpenter must manage, by some means to nail a floor ou the under side of of the joists as well as above to hold the sawdust packing between the two. We accomplished this by raising the floor before putting in the uprights, so that a workman could nail on the under side. About a dozen more pieces will be needed for the studding for the gable ends, and these should be got out as long as convenient, for these at each side of the door had better reach up to the roof.

The rafters, twenty-six in number, may be 14x4 and of such length as will be determined by the pitch of your roof. Ours projects one foot from the caves, and the roof boards the same at the ends, so we This, have a one foot cornice all round. however, is more for taste than utility.

With the aid of our photograph, any carpenter would be able to construct the building without further directions, we think.

We have made our roof with rather a sharp pitch for convenience in storing the shelves and inner doors in the loft in sum-mer time. The floor is to be packed with sawdust when laid, but all the rest is simply put in the loft and pushed over be-tween the studding until full. As it settles in drying, more can be pushed in every fall before storing the bees inside, for several years.

As with extractors, each one must determine how much expense he can put in such a house, but we should always build, if possible, so that the house may be painted sometime, if not when huilt. We painted sometime, if not when huilt. presume that a house could be built for \$50 that would winter bees perfectly; but in that case it would have to be rough and plain. Ours cost about \$200 complete. Before you decide you cannot afford a house for wintering, reflect that in case even as many stocks survive on their summer stands, we shall have to provide at least five pounds of food per stock extra every winter.

stock extra every winter.

No. 81.—Don't make such sweeping assertions about feeding as you have lately. Remember you are a "Nevice, as of eld." Witness the loss of a stock in June, which, if it had been fed, perhaps might have been making part of the tens of hency yielded by the "Hexagonal Apiary." It strikes me that you have been running that "old windmill" at such a rate this spring, that the poor bees have ofton had to exclaim, "Ah! he is only a Novice! for he has not attended to us as he onco did, and we shall have to give up."

P. H. Gibbs, Guelph, Ont.

Thank you, friend G., for frank criticisms. We are certainly still but "Novices," but not such cruel ones as to let any bees starve, we assure you, nor can we look back and see that neglect was the trouble, unless it was neglect in making sure that each colony had prolific queens last fall. The stock lost in June was this way: Their queen failed in April or May, and to keep them up one from another weak colony was given them that failed also. Hatching brood, of course, would have saved them, but it would have been too much like dividing stocks under the eircumstances, so we gave them a queen cell and they held out until not more than a dozen Italians were left, and these few guarded their ample stores of scaled syrup until none were left but the sentinels who stood guard at their domicile until the last. May we not learn from them a lesson of perseverance?

No. 85.—Judging from present behavier, my bees will only take advantage of basswood to raise mere breed, hegin more queen cells, and keep me continually anxieus and continually at werk trying to circumvent them. If between "plenty of pellen" and plenty of brood there be the relation of cause and effect, it is clear enough why they thus hehave—for all the season through (thus far) there has been a superabundance of pellen stored. I had a comb in one frame that as to content was literally nothing but pellen at one time. I wender if they don't make mistakes in this direction semetimes I am sure my bees will never use all the pellen they store.

Lucy A. Wilkin, Farwell, Mich.

We hope our friend ere this meets her eye will have had ample proof that such a thing as too much brood is impossible, i. e. if there be honey to gather, and we have sometimes thought a powerful colony of Italians would almost store honey when there was none. If a colony should contain an unusual number of bees after the season of surplus we should make them raise queens and divide them in the tall into two or even three stocks. should prefer that each stock contained plenty of bees however. (See preparations for winter in next number.)

I went to Kentucky three weeks No. 85.—1 went to Kenthery three weeks since and brought home 85 hives of bees, I am now in a few days going to risk shipping 100 or more hives of bees to Gallup's neighborhood for the fall pasture. Will I bose the whole thing? The "Glenning's system" is my hobby new.

R. Wilkin, Cadiz, O. hobby new.

May all manner of success attend friend W., although we have great fears that his project may end no better than ours did several years ago, viz: We earried a dozen stocks and set them in a buckwheat field where they made the air resound with their busy hum, but while they came near starvation, their companions at home had gathered nearly enough for winter.

No. 87.—I lost all of my bees last winter.
New I know of a swarm in an old box hive that I am going to get to-night and bring home. Shalt I transfer them this late? I think it will do, but my wife tries to discourage me. What says Novice?

E. HUNTER, Manchester, Mich.

July 3d, 1873.

Transferring can be done at almost any season, but a hot day in July and the hive full of honey would be almost sure to result in a general sticky muss. Don't do it unless your wife agrees, and further more agrees to help. It is almost, wo-

man's work, and if you and she both can save all the comb containing brood, and get them into frames without breaking the heavy combs of honey and having it run all about we shall think you both quite skillful. Save out the heaviest combs of honey for yourself unless honey should fail when you will be obliged to feed it Please report your success.

No. 88.—Your notion of making at least ten stands contribute to the making of one new one coincides exactly with my coinion. Honey and swarms don't go together. You practice on Benaparte's rule—of having an overwhelming force at the right time and place.

Yours, &c., J. B. TOWNLEY.

Red Hill, Mo.

Thank you Mr. T. for the illustration. Could we have had "an overwhelming force" June 1st. in all our hives, we should have had more than only one ton of honey from fifty-six colonies; however should there be no fall pasturage, we feel impatient to see if we cannot do better through another winter. Twenty-five colonies with extra queeus and plenty of pollen we feel sure would have done far better than the fifty-six.

No. 89 .- Some time since I wrote you how No. 81.—Some time since I wrote you how I thought handles or recesses were cut in boards for the fingers, by the circular saw. I have just seen the arrangement, which is a saw about six inches in diameter with a wabbling motion; this is got by slitting a one inch pine wheel at an angle and placed inside cellars. R. H. DINON, Canadaigua, N. Y.

Thanks, friend D. We have never made any such cuts in our hives, because we have found them quite easy to handle by taking hold under the lower edge, (we never carry the hottom boards with them.) It has been said they would sting the fingers, but such has not been our experience.

Photo, of our Apiary (8x10 size) is now ready to mail and will be sent on receipt of 30c. Or to any subscriber sending us one new name besides his own. Of course same names cannot be counted twice.

## ADVERTISEMENTS.

Advertisements will be received at 10 cents per line each insertion, each in advance; and we require that every Advertiser satisfies us of his responsibility and intention to do all that he agrees, and that his goods are really worth the price asked for them.

HONEY JARS.—One lb. per gress, \$5.75: corks, 60 ets. Two lbs. per gress, \$8.75; corks, 70 cents. Other styles furnished if desired. Address NUNN BROS., Oberlin, O.

THE PRICE FOR ITALIAN QUEENS
after the 1st of August, will be for
Tested Queens,
Warranted Queens, 2.00
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VERY CONVENIENT Queen Cages for V shipping, intreducing or hatching cells on the "Nursery plan." Printed directions pasted on each eage. Price 10 cts., or \$1.00 per dox. By mail 2 cts. cach, extra.



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## PUBLISHED MONTHLY.

Vol. I.

MEDINA, O., SEPT. 1, 1873.

Xo. 9.

#### STARTING AN APIARY,

No. 9.

S we are admonished to "in times of peace prepare for war," so we say during this month prepare for winter. It is our sincere wish that each one of our readers carry safely through the coming winter every colony they undertake to, and further more we are persuaded it can be done if the directions we propose giving are carefully followed.

If directions given fast month were attended to in regard to having all queens prolific ones, we are all right on one of the great essentials. Do not undertake to winter any colony whose queen produces but a small patch of eggs and brood, for she will probably be only an expense if her colony does not fail outright in the spring; we want none but those that will go through safely and surely. Of course in "taking the measure" of a queen plenty of food must be on hand.

Having made up your mind what colonies are to be wintered, satisfy yourself by careful inspection that they have good, cutire combs, and, if you have surplus frames of comb, choose none but the best worker combs; be especially careful that none are left in the center of the colony built half way down, for many a hive of bees have starved thus in severe wenther because they were unable to get over to the remainder of their stores; if such combs must be used, place them on the outside as they would be built by natural swarms. Unless you can permit all the pollen to remain in the hives, gathered during the fall, make arrangements to give it back to them early in the spring. Considerable has been said about giving tuem for winter, one less comb, that more room may be allowed for the bees and that they may thus cluster more compactly. As we have had no experience in the matter, we cannot advise, but think with very strong colonies it could do no harm, at all events. We have never known a hive too full of honey to winter, for in

our locality they always consume enough from the central combs to have plenty of clustering room before very cold weather.

We unhesitatingly advise all to extract all of the honey before giving them their winter supplies; our reasons are briefly; First and foremost, the great "lee malady" of late seems to be much on the increase, and localities where bees had for years died only from starvation, have suddealy been visited to such an extent that almost none were left; you may have always found your bees healthy, and yet the coming winter may take all. A list of reports seem to point out that neither honey dew, late pasturage, nor any other particular yield is the source of the mischief, Those who so confidently relied on scaled combs of clover honey gathered in June, seem to have had, many times, the very worst form of the disease. Secondly, we are happy to add, that in a "dollars and cents" view, sugar is enough cheaper to abundantly pay for the exchange; for the honey remaining now in the hives is generally the very thickest and best, and with us sells at 15c. by the quantity, and re-tails at 20c. We presume A, coffee sugar can be purchased anywhere in the United States almost as low as we get it, viz: 11c. by the barrel, and this will make the cost of thick syrup, fully as thick as houey, only a little less than 9c, per pound, Allowing one fourth of this syrup to be consumed by the bees in climinating the wax to cap it over, and we have total cost of scaled syrup 11 c. If the honey sells for 16e., there still remains 42c. to pay for lubor of extracting and feeding. It supplied with plenty of feeders, we could prepare the syrup and give twenty colonies 25 pounds each and do the work easily in one day, and \$20 or over the amount saved in giving them syrup instead of honey, we think very good pay for a day's work,

#### HOW TO MAKE THE SYBUP.

dust in this way: Borrow your wife's wash boiler, and with it her advice and assistance; put it on the stove (the bodler,) pour in water, and put in sugar until a sample of the syrup, when cold, is

about like honey. When you have made one boiler full, pour it into your extractor and start another. Don't let it burn, the women know how much it should be

stirred.

We believe the syrup answers equally well it made of cold water and sugar simply stirred up, and the syrop poured off when the sugar has settled, but we cannot get it as thick by this method, and consequently it takes the bees longer to evaporate it to the point at which they decide it should be to seal it up. Last season we fed some that they kept in the cells nearly two weeks before they would seal it, but they wintered on it equally well, and besides, if we wish them to take it rapidly, it should be given them warm. In regard to cream of tartar, we would add about twelve teaspoonsful to every hundred pounds of sugar simply to prevent granulation of the syrup on our ntensels, etc., while handling it. If you can get it into the combs and the bees seal it up before it has time to crystalize, it answers every purpose just as well, but to do this you must have all strong colonies, as in fact you should have any way. So many have succeeded without cream of tartar that we have no hesitation in saving it is not essential. Even should the syrup turn to sugar in the cells, it will do no further harm than the fact that they are very apt to waste it in the spring, when it is being consumed.

## HOW TO FEED

don't matter, so you get it all scaled up as soon as possible. We think it will pay you to get your tinsmith to make you about one-fourth as many tea kettle feeders as you bave colonies, and you can then probably get all through in three or four days, and where he makes a number at once they can be made cheaper. It is true a tin milk pan placed on top of the frames with a cloth laid over it does very well, and some of our triends say they work as rapidly, in warm weather. prefer the tea kettles because they hold just about 25 pounds each, and when once filled and placed on the bive, that hive is done; besides, it can all be attendel to without even daubing the fingers if you are careful. Have your extractor mounted on a box of the right hight to allow the gate to run into the feeder, place these when filling in a shallow pan, but learn to fill them without running them over; when the syrup is cool enough on allow your hand on the feeder, place them on the top of the frames of the five. Before you have learned the knack of inverting them quickly, you had better carry along a pan, and hold them over that outil they cease dripping. Above all things don't get robbers at work: to be sure that none of your feeders leak, try them all with builing water before using them. Sometimes in soldering, a crevice is only closed with resin, and the hot syrup melts this out. If they will not leak a drop when inverted full of water, there is

no danger, and after they have once been used they are all right for a life-time, even if made of the cheapest tin. Wash the ontsides if you wish but not the inside. They will never get sour if thick symp be always used, and when dried on, it prevents rust. The hive must be nearly level, of course, and this is a feature about the 'simplicity' we like, for we al-ways have them thus. A second story is always used in feeding, and one such may be used for several by turning back the cover until feeding is done, and then moving both feeder and upper story to the next.

#### HOW MUCH TO FEDD.

Many experiments seem to indicate that ten pounds of sugar will safely earry a colony through the winter, but it is so easy to give them the whole amount to take them through until May, while we are about it, that we think such a course best, and we are fully satisfied that sealed combs of food is more economical and just as beneficial as any possible way of "tinkering" with liquid food in March and April. In buying the sugar, to be sure and have ample stores, we would ealculate twenty pounds of sugar for each col-

Some, of course, will consume more than others, and in April and May we should see that supplies are equalized with the two-fold purpose of supplying the needy, and getting syrup all used up,

out of the way of honey.

Had not unscripulous patent hive venders encouraged the idea that honey could be made by feeding bees sugar, we should not deem it necessary to state here that sugar syrup will always be that, and nothing more. Those who choose can try, if they like, to see how much it takes to build comb.

## WHAT TO DO WITH FALL HONEY.

As we have never been so fortunate as to have a yield of honey here after the middle of Sept., we can only suggest a remedy. If there is no lull in the yield of honey during warm weather, it might be difficult to get them to use the syrap. Experiment will have to be the guide. When you get combs nicely filled with syrup, endeavor to make them store in comb given them temporarily, and these may be taken away, or combs might be filled at any time, and laid aside until all pasturage was over and then given them, and were it not for the danger of thus depriving them of all their stores of pollen, we should call this a very good way, and in fact we have made first-rate colonies by shaking the bees and queen from after swarms that were destitute, (obtained from neighbors of the "box hive persuasion") on a few Langstroth frames of sealed honey in December. As winter stores are safer than honey alone, even if only partly of syrup, we would advise those having box hives that need feeding to use the syrup by all means, and the same remarks will apply to those having

no Extractor at command. If extra empty combs can be had, exchange all but the brood combs and then feed; if it can be so managed that the bees use their natural stores during mild weather they may do very well.

And in conclusion we will add, that to

succeed you must feed early.

Our best results have been from those eolonies fed up in September; Oct. if the weather is warm may answer, but colonies fed even in the fore part of Nov. have almost invariably been unhealthy. Weak colonies most especially are slow in sealing their stores, and these, should be fed first, but a better way is to have no weak ones, for by exchanging brood we may equalize them to a great extent. We have of late had success in removing a comb of brood, bees and all, and in no case has there been quarreling. (Be sure you dont get the queen too, for that would assuredly be a loss.)

## IMPROVEMENTS IN BEE CULTURE.

R. EDITOR:—In your article on the rearing of queens, in the Angust number of "Gleanings," you give very good directions for the improvement of bees by selection. But allow me to tell you that you consider the question only on one side. For it is not all to have prolific breeders, you should have also good sires. In this question, drones are as important as queens. If we allow nature to have her way, as to the production of drones for the fertilization of our queens, we will run the risk of losing as much on one side as we gain on the other. Indeed, if we let chance have a hand in the matter, we will be apt to raise drones, from the least prolific, as from the best. Besides, if we wish to produce pure Italians, we cannot do so unless we control the production of drones, for if there are any hybrids or blacks in the neighborhood they will be sure to raise a quantity of drones.

To prevent this, let us remove all drone comb (as far as possible) from every hive in the spring, replacing it with worker comb. Then let us choose the best or same of the hest stocks and introduce one or two drone combs in the middle of the brood, early in the season, say in April. These stocks will furnish drones for our queens all the season. In July, when the bees begin to kill their drones, we should remove these combs containing drone brood and introduce them into some queenless stocks, kept queenless for that purpose. Care should be taken that the drone-breeding queens be not of the same family, or at least not too closely connected, with the queen-hreeding queens, in order to prevent in and in breeding.

This removal of drone comb in the spring, which seems at first very tedious and long, is easily performed with a little patience. It can also be attended to with advantage when extracting honey.

A few more remarks and I am done. We never kill the queens of the hives in which we want to introduce queen cells until the tenth day in the morning. We introduce the queen cells in the afternoon; this leaves the hive but a short time without a queen. A heginner, how-ever, had perhaps better remove the

queen a little earlier.

I also find fault with your way of making a queenless stock, hy putting a leaf partly under the cover. By that way, if you have a large number of hives, you don't know the date of the insertion of the queen cell and may have to inspect the hive several times without result. On the other hand, if a young queen gets lost, you are not aware of it in time, as you do not know when she should be laying, unless you can remember the date. For this purpose and for all other matters pertaining to the apiary we use black-boards on every hive. They are made of \(^1\) inch boards, \(^3\) by \(^5\) inches; on one side they are painted with patent liquid slate, to be had in any of your large Eastern eities. The other side is painted white, with the number of the hive on one eorner. These boards are fastened behind the hive by a small tin holder. When the have is queenless we write the particulars and date on the board and turn the black side out. When the queen lays we mark the date of her beginning to lay and the year in which she was born, and turn the white side ont. We thus know the age of every queen, her pedigree and in fact all the particulars about the hive, by referring to the black board. In summer we also keep a large slate on which we write all the work to be done in the apiary, introduction of queen cells, inspection of young queens, removal of hybrids or unprolific queens, &c., &c. When Mrs. Tupper visited our apiary, some two years ago, she was struck with the ease and facility afforded by these black-boards and adopted them immediately. Since you seem to make it a business of furnishing cheap apiarian supplies, could you not manufacture these boards, with tin holders for the benefit of your readers?

But I notice that my "few remarks" are degenerating into a long article, I will therefore close by declaring myself one

of your admiring friends, C. P. Dabaur, Hamilton, 141. August 7, 1873.

Many thanks, friend Dadant. We saw the udvantage of rearing choice drones, also, but feared to confuse some of our friends by giving too many directions at once, and we still insist that if all queens reared are from choice or pure mothers, we shall in time have far better stock than at present. Natural queens or queens from natural swarming are always hap hazard stock, and should not be tolerated by any one having the least desire to receive the benefits of the Italian

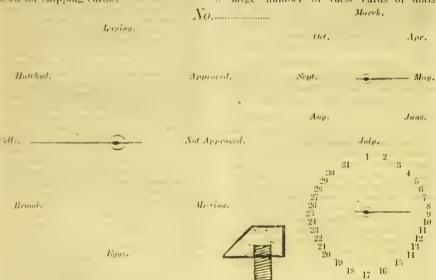
race. In regard to keeping a stock queenless two days, we do not see as it matters much in July, August or September, but we must confess that we have had so many cells torn down of late that we are not satisfied that inserting cells at once as soon as the old queen is removed is not almost as well. (See queen rearing our another page.) In regard to the blackboards, we were "deep" in a similar device when your article was received, and it seems from the Bee Keepers' Journal that Mr. Winder, of Cincinnati, has been working in the same direction.

Now our device came about mainly as a matter of necessity, for Novice has been having a touch of partial paralysis in his right side again, and any kind of writing was almost out of the question for a few weeks. He could—but when it came to even keeping a record of queens or anything else—well, he submits the following, which is supposed to be printed on stout weather-proof card board, such as is

used for shipping cards:

If, on our next visit, we find her again, and she should be laying, we set the indices to read "laying—Ang. 25th," and thus it remains until we can judge whether she is prolific, and workers three-banded; then we move only the index to "approved," and thus it remains until she is sold or fails from old age, when we set it "not approved." If we remove her it may be expedient to give the colony either eggs, brood, or cell for replacing her, and we indicate which and date. If we give them a virgin queen, call it "hatched," if killed, call it "missing," and "blunder away," for you know as well just "where you are" at all times as did the man who tried to yoke a pig. When "piggy" made his escape by jumping through the window of his shop, he conscled himself with the ejaculation: "Drat it, I've got his dimensions any how. Seven by nine, exactly."

There's nothing like system and precision, and as we always sell everything we consider of value, we have ordered a large number of these eards or dials



At the centers are affixed a thumbserew, with a point projecting at one side for an index. These are made cheaply by soldering a piece of galvanized sheet iron, (shaped as in the accompanying fignre,) in the head of a small wood serew; these screws should also have their heads tinned, to prevent rusting. With four tacks of galvanized iron, fasten the eard on any conspicuous part of the hive. Make a hole in each of the three centers such that the screws will turn in and hold firm, but yet turn easily. An explanation is hardly needed, but we will give one illustration:

Suppose we are examining a hive, to see it a young queen has commenced laying, and she can't be found, before leaving we turn the index on "missing," and the other two are made to indicate the date, whatever it may be, as "Aug. 22d."

made, and think we can sell them for about one cent each. If we can afford them cheaper, will say how much next month. The screws and tacks we will furnish until further notice for each card for etc., making the whole cost of our Queen Index for each hive five cents. They can probably be sent by mail at a cost of about two cents for four complete set. The cards can be mailed at printed matter rates, and we will pay the postage when one dozen or more are ordered.

We acknowledge with thanks the receipt of many valuable articles, items and queries, and much regret that want of space forbids considering them at ones. The printers inform us that the matter we have sent in would fill at least another number. Editorial also crowded out.

# NOVICE'S . Gleanings in Hec Gulture.

## A. I. ROOT & CO.,

EDITORS AND PROPRIETORS.

## Published Monthly, at Medina, Ohio.

Terms: 75c. per Annum. Anyone sending as 5 Nubscribers can relain 75c. for their trouble, and in the some proportion for a larger number.

**IPRINTED AT MEDINA COUNTY GAZETTE OFFICE.1** 

Medina, Sept. 1, 1873.

#### UTALIAN QUEENS FOR ONE DOL-LAR.

ERHAPS some apology should be made before submitting our plans of queen rearing to many who have had so much more experience in that branch of bee calture, yet hoping we may have struck on some few ideas of value somewhere, we as usual try to help whether we do or not.

In the first place, kind reader, we found our hives about the middle of July running over with bees, almost, and a very poor prospect of any honey to be gathered during the balance of the season. In some of these the bees actually hung all day on the outside of the hives and we, Yankee like, kept reflecting whether these bees could not just as well earn something, for, without a doubt, should we remove their hive and give them a new one with a small piece of choice brood, they would rear queens at once. As this would necessitate making a new colony and the attendant expense of extrastores, we disilked the plan, for, il we preferred winter-ing only our present number, we should have before us the tedious process of uniting when through. We finally thought of using the surplus bees to rear queens in the upper story and have suc-creded so well in getting queen cells started thus, that we have been wondering if the loafing bees are really not superior for this purpose,

One colony produced forty-six fine queen cells in the apper story immediately, on having all communication cut off from below; and we have, as a general thing, had more and finer cells huit above than in the main brood appartment. As our quilts did not make a "sure thing" between the two stories, we also interposed a thick sheet of Manilla paper, making the entrance immediately over the main out, on the roof of our old style Langstroth hives, and we put on an extra door step on the upper story of the simplicity hives. When the two colonies are again united the scent being the same we have nothing to do but to close the upper enrance and shake the bees below. As we

have quite a number of hives that have not worked above, we have divided these by a sheet of fin, boards being two thick and clamsy in our opinion; we give the old queen all the hive except three frames, these being sufficient for queen rearing, and in some cases we have given the unclens the old entrance, obliging the main colony to use a new entrance in the back end, for we wish to afford the young queen every facility for returning without any mistake from her excursion. As sheets of tin are somewhat expensive we have employed old tin ware to good advantage; for instance an old wash boiler flattened ont and ent up in pieces of the proper size, with the wire left on the top edge for the quilt to rest on, answers every purpose. Wire cloth will not answer or at least not with certainty, for no queen cells will be built so long as communication can be kept up between the two colonies. The crevices at the entrance and on the rabbit where the frames rest may be closed with wool or small rolls of woolen cloth. If we have one choice queen to rear from, we should give them, after they are fairly started, only brood from this queen, and by entting the the comb in small strips this brood may be made to go a great ways, thus having all queen cells started, valuable ones, and much progress will be made on queen cells while waiting for an inserted cell to hatch. If the cell should be destroyed they, of course, are rearing good ones in its place. Now comes an important item. Although we may insert a dozen cells and have them all hatch properly, the next dozen may be nearly all torn down, and to prevent this we have been using the queen cages adverfised last month, which are made as follows: In blocks two and three-fourth inches square, cut from boards dressed to a inch in thickness, bore holes two and inches across; these, we bore with an expansion center hit made very sharp; if the blocks split badly bore the holes first and saw them out afterward. On one side with four tacks fasten a piece of tinned wire cloth about sixteen meshes to the inch; on the other, make a door by bending a square of wire cloth over a square frame of rather stout wire; hinge the door by driving staples made of common brass pins over the wire on one side of the door. A third pin driven in the wood at an opposite corner and bent at right angles makes a sort of button to fasten the door securely.

Now then, with a populous colony, in warm weather, we have only to put our queen cell in this cage and lay the whole on top of the frames, for the heat from the bees passes through the light wire cluth, and when covered by the quilt it is kept abundantly warm. With weaker colonies we cut out a place in the comb, and this comb, containing a queen cage, can always be earried to any hive in which it may be needed. As the cage

contains ample room we may allow the queen to remain in it a few days if the colony has queen cells not quite ready to remove.

Again fifteen of these eages just fill a Langstroth frame, and when fastened with transferring clasps or some similar device until the bees wax them fast we have a very convenient nursery, just as good as if it was patented. The whole could in fact he made of one piece of wood if preferred. While bees in with the cells are not positively necessary, we should always put in a few unless in cutting the cell apart some of them get cut open. And here is a point new to us at least: In cutting apart three cells built all together we supposed the central one would have to be destroyed, and we cut out a white queen, without wings or even legs, hardly; at a suggestion from P. G., the embryo queen was laid on a leaf in one of the cages on top of the frames of a hive. Imagine our surprise and astonishment at finding a few days after a full fledged and colored queen as occupant, and stranger still to us was it to see her well received by a queenless colony in another hive, and the way she went to diving into the cells for honey the first thing, caused "P. G." to christen her "Lunatie" and of course her queen. She is now a finc, large, yellow one.

Now it has always been to us one of the things inexplicable why a queen was always well received in a hive from simply being hatched there, and it seemed almost like superstition that a whole colony of bees know whether a young queen, when seen erawling about on the comb, was hatched in the hive or was placed there. Those who have made intile efforts to introduce virgin queens will readily understand us. And we were still more surprised to find that our friend Shaw introduces virgin queens by caging them from twelve to sixteen hours, not The experiment with "Lunatic" seemed to imply that the bees had no grudge against an infant queen, and to our great surprise and relief we have been for the past week putting queens just hatched into any hive with impunity. We simply remove a frame from the queenless hive and place the young queen among the bees, she instantly begins to search in the cells for honey, and so far we have hardly had a bee take any notice of them unless it was to attempt to drag such a puny, weak thing out of the hive when we eage her a few hours or until she is able to walk steady. These queens after a few hours seem perfectly at home and as we have had only one out of nearly a dozen "turn up missing" we shall think it safer and less trouble than to insert cells. A large number of cages can be kept in one hive and thus fucilitate examinations; or indeed the whole top of the frames of a strong colony may be covered with cages so arranged that no bees can pass above them, and we can

then open the doors to put in eells, examine queens or remove them without smoke, veil or anything of the kind.

The top of a Langstroth hive will contain thirty of our cages, or a frame can be made of strips of wood divided into apartments of the same material and the whole bottom covered with wire cloth, so that we can have sixty-three eages nearly two inches square each. Of course each one must have a separate door and to use all the apartments we would need a very strong stock of bees, a two story hive reduced to one for instance, and the whole should be made very close and warm, with a soft thick quilt on top. Such an apparatus should be examined two or three times each day; for to succeed in introducing the queens they should be removed almost as soon as hatched. Put three or four bees in with each cell taken from the hive on which it was built; these may be seenred by holding the cell against a cluster of them. When a cell must be ent open in separating them, omit the hees, but it must then be examined oftener and the young queen will soon die unless they have a drop of honey.

Since writing the above we have actually been using a fifty-four eage nursery above the frames of a hive without doors at all, but simply a piece of rather thick stiff woolen cloth is tacked to one edge and spread over the cages, and with a quilt over this the cells are as warm as in the body of the hive. We used a two story "simplicity," reduced to one so that it is crammed with bees, and we can examined the whole in one minute, for all that is to be done is to raise the lid and roll up the eloth and quilt. No fears need be entertained that the queens will get together, for they instinctively stick to the wire cloth on the bottom of the cages, seeing the bees below. We need hardly add that not having a hee in your way to bother is a great relief, and we are certain that just as fine queens hatch out without any aid from bees being kept in with the cells, nor is it necessary to make any provision for food in the cages, as the queens should be removed and introduced in a few hours at most.

The time occupied is less than that of inserting a cell, and we find it less risk; where we have waited until the annuelled colony had started cells, we have had no loss, and we have usually succeeded, even when the old queen was killed and the young one put in on the same day, and even with the most viadictive hybrids at that. To make a nursery as we have described, it is only necessary to make saw cuts across an inch board, two inches apurt and half way through; now, when strips are ripped off from this hoard just thick enough to fill the saw cut, it will readily be seen that they can be pushed into each other, so as to form cages two inches square. Cover the under side with wire cloth, lay it on

top of your hive, and pack strips of woolen around the sides to make it bee tight, put in your cells, and it seems to us that any bee keeper could rear "queens for a dollar." Those who rear the best and finest ones will of course get the most orders. There's room for and free, us. We will insert their eard free, There's room for all who will aid

Of course we may expect such attacks on "dollar" queens as we have had on "dollar" hives, but "by our works shall we be known." To aid in the matter we will furnish fifty-four cage nurseries for Langstroth hive, ready to put together, for fifty cents; this includes wire cloth, and the whole can be sent by mail for ten

#### RECAPITULATION.

Queen rearing may be reduced to the following simple operations, with the implements we have mentioned, supposing your hives are all divided and each part has learned to protect itself from robbers,

gather pollen, etc., etc.:

Suppose your nursery stocked with
cells, we will give the first queen hatched to the first queenless hive, and the next to the next, and so on. On examination next day, if the queen is all right, the hive containing her may be omitted in our daily examinations until she is a week or ten days old. When found laying she may be shipped to fill orders or used as required. All queens missing in our daily examinations should have their hive supplied with a strip of eggs or very small larvae from our choicest queen mother, for if the queen is really in the hive and has only been overlooked, this will do no harm, and if she is lost, cells of value will be started and thus we will keep our nursery supplied. We should never or seldom risk introducing our young queen until we are assured they are queenless by their having started queen cells.

Thus we rear cells, and when these arc sealed cut them out and give them a a young queen; after the young queen lays we rear cells again, and so on, pre-suming the queens will be better received after cell rearing and that better cells will be built after they have had a queen. With the queen index and a fifty-four cage nursery, the work of the apiarist is very simple and well defined; providing

he is prompt, neat, careful and diligent.
P. S.—We need hardly state that cells should be reared only in colonies that can do it well, and that their own brood should always be replaced by that from a carefully tested queen. With our nursery all cells may be saved, no matter how closely they are built, for if we wait until the queens are fully formed they ripen equally well, so far as we know, if kept warm, whether out of the cells or scaled up.

In consequence of the very sudden and unexpected death of our Artist Photo's have been delayed.

### HONEY COLUMN.

HAVE got off 1600 lbs. box honey, which I have sold for 25 cts. per pound. Extracted sold for 14e. I have also worked another small apiary for half of the honey (box honey), from which I have taken 900 lbs. I have also worked a 150 acre farm with the help of one man, and to tell the truth I am near-G. M. Doolittle, Borodino, N. Y. ly worked out.

I am having considerable of my honey sold in our town at 25c. Commission 10 R. Wilkin, Cadiz, O.

I shall extract all my honey next season and hereafter, for I have no trouble in selling all I can produce at 20c. Joux A. Buchanan, Wintersville, O.

We have 1200 lbs. nice basswood honey for which we want 12½c, per pound, and pay for kegs. Kegs hold 150 lbs. Have some in barrels. G. M. Dale, Border Plains, Iowa.

I began on a small scale, as you tell about, and try to learn as I go along. began this spring with three swarms; now I have ten, and 43 lbs. of nice box honey, which I have sold at 40c, per lb.; 80 lbs. extracted honey sold at 35c. How is that for a new beginner, and in the center of the city at that?

H. A. Holcomb, New Bedford, Mass. Have taken 800 lbs. honey from eight swarms, and increased three new swarms. I have one barrel containing 500 lbs. which I wish to sell for 15c. per lb., bar-rel not to be returned. S. ROWELL, Faribault, Minn.

FRIEND NOVICE:—I have three thousand pounds of nice extracted honey, for which I want 14c. per pound, the barrels thrown in. I have 80 swarms of bees in good condition. They are gathering honey very fast, and I have all that I can do to keep up with them. I have all Italian bees; am the only person in the county that uses the extractor that I am aware of; have been reasonably successful, and don't think of giving it up; but can't get 500 pounds from one stand yet. GEO. PARRATT, Winimae, Ind.

E. C. Blakeslec of this place has 1000

lbs. extra white clover honey G. W. Dean, of River Styx, Medina Co., O, has about 1500 lbs., and we have about 1000 lbs. of our own remaining. In view of the scarcity of honey in this locality, and the extra quality of the Medina Co. clover honey, our prices will be for the present 18c.

In regard to the honey market we give prices as follows:

[For the "Gleanings."]

Aug. 21st, 1873. We have made arrangements for the sale of large quantities of honey, tracted honey is made a specialty. Ex-We do not handle honey on commission, but pay cash on delivery.

The prices for extracted honey depend on the color and quality, and range thus:

Buckwheat honey from 10c. to 12c. pr. 11c. 10e. to I3c. Wixed 4.6 . 1 Basswood 13e. to 15c. White Cl'v'r ", ... 15e. to 18c.

"Mixed" honey means two or more kinds together. We do not want honey in glass jars; must be in bulk of 5, 10, 32 or 40 gallon packages; have no objection to candied honey.

Comb honey ranges from 20c. to 30c. per lb.; same price for same quality of honey in large frames as in small boxes.

NATIONAL BEE HAVE CO. St. Charles, Kane Co., Ill.

Friend Navice: - Your request for quotations rec'd, which please find enclosed. These quotations are based on the merits of the several kinds of honey. You will observe that we quote basswood honey lower than white clover. This is proper, as we find in practice that white clover not only sells better, but is preferred as an article of food. We can sell 10 lbs. white clover to one of the other.

Sooner or later beckeepers will find it to their interest to keep the several kinds of honey as distinct from each other as possible—otherwise they will have to sell it as "mixed" honey. Yours truly, M. M. Baldwin, See'y.

We regard the above rates as very fair; but now comes another consideration, and we hope no one will feel hurt unless they are guilty, if we do speak plainly.

It is this: we bee keepers want to be sure of our moncy when we send it away. Two years ago we sold our honey to C. O. Perripe, of Chicago, who agreed to pay for it as soon as received in Philadelphia. Messrs. Shane, Shaw, White, Dean and some others sent their honey also. We got our pay by making deductions for inferior quality and leakage after about three months; Mr. Shane also got his, but the last three have as yet only got renew-ed promises, and we are well aware that the loss of the amount (about \$300 or over) has been keenly felt by all. We don't know how much he yet owes, but many similar complaints have been sent

Again, Baumeister & Co,, of Chicago, this season, after receiving a sample of honey from Mr. Shane, wrote him they would pay him 16c. for a barrel, and that he should send it by express C. O. D. On its arrival they refused to pay the charges, amounting in all to about \$15, and Mr. Shane had no choice but to pay the amount himself, leaving about 13c. per pound for his honey net, or to get it back as best he could.

It seems to us that ordering 500 lbs. of of honey by express C. O. D. is rather a queer proceeding. We leave our readers to draw their own inferences.

In regard to the standing of the National Bee Hive Co., whose card we have given, we can only state that we don't find them quoted at all, and we have had no time to make proper inquiries before going to press. As they sent us no relerence we hope they will excuse these re-marks, for we would caution our readers to in all cases find out the precise responsibility of the parties to whom they are sending their honey. No honest man will object to such a proceeding. A large amount of honey is now being retailed in towns near where produced, put up in glass fruit jars. These jars are always wanted in every family, and quart jars, honey and all, are sold here for 75c, each.

Grocers are usually willing to sell them for a commission of ten per cent., and as the whole transaction is near home, there is no risk and no loss. Each jar should have a neat label, with the name of the honey and also of the producer. These can be procured of T. J. Walton, Safenc, O., printed in two colors, cut and gummed, as follows: 1000, \$3; 500, \$2; 250, \$1.50. No less quantity than 250 printed. Samples sent on application.

In conclusion: It costs too much to produce a ton of honey to allow irresponsible parties to cheat us out of it. have tried having honey sold on commission in New York, but it resulted in getting about half what it was worth after great delay. If your crop is not too great, we advise having it sold by grocers in your own neighborhood.

# HEADS OF GRAIN FROM DIFFER-ENT FIELDS.

No. 90.—I have built a cellar, walled and arched with rocks. Is it advisable for me to put my bees in there this winter or leave them on their summer slands? Inclosed you will find one dollar for which you will send me a queen. If you can send her by mail all right. But if that is played, you need not send her as theroisn't any express office near me. My faith is very weak on Italian hers. I have several hives and they are not as good as my blacks. I will try a little longer and it I don't soon get better ones, I will stop trying Italians. M. H. MUSTER, Frohns, Mo. Such as collar if not drawn, we think

Such a cellar if not damp we think would answer excellently. As to whether bees are better in doors or out as far south as Missouri we are unprepared to answer, but would suggest that our friend try half of his hives each way and report to us. As we learn that queens are still sent by mail by queen rearers generally, we shall continue sending them thus, until notified to the contrary. The difference in cost of a two cent stamp and ordinary express rates is quite an item, besides remoteness of express offices compared with post offices. Bear in mind, however, that any writing in the package whatever, besides the address, subjects the writer to a penalty, and the cages must be so put up that the P. M. can, without trouble, ascertain the entire contents. This and the two following letters sound strange to those well acquainted with the Italians, but they only show how little we can judge of many matters pertaining to bee culture from a single or lew experiments.



Or how to Realize the Most Money with the Smallest Expenditure of Capital and Labor in the Care of Bees, Rationally Considered.

#### PUBLISHED MONTHLY.

Vol. L

MEDINA, O., OCT. 1, 1873.

No. 10.

#### STARTING AN APIARY.

No. 10.

of the above heading would probably be more appropriate for the next six months; yet we do feel confident, kind reader, that, with proper precautions, all stocks in good condition now, may be preserved without deterioration until April, 1874.

In giving directions for wintering we are obliged to bear in mind that our readers are, many of them, placed under circumstances widely differing, and that to have our remarks equally applicable, these varying circumstances must be considered.

To illustrate: How many of our readers have only one colony to pilot safely through the winter? But few, we trust, yet we will briefly consider the duties of such. If no dysentery or bee disease has been known in your vicinity, and you prefer to run some risk of losing them rather than to remove their natural stores, or if they are only in box hives, perhaps you may leave them on their summer stands. We would not undertake to protect them from the cold in any way that would deprive them of the sunshine, for that is one of the great essentials for out-door wintering. Protect them on the north, east and west, by fences, walls or buildings, from cold winds all you can, but don't intercept the snushine; if they have no such protection, give it them now, and let it remain the year round. Such a a fence can quickly be made of cheap lumber, and it will be an excellent idea to have it extend on the south side also; but far enough away to east no shadow on the hives. If you contemplate building up an apiary, make it hexagonal all around your apiary, and it may run as close as within three feet of the row of hives furthest north, a little more than that on the other sides, and perhaps ten feet from the southern row. This fence should be at least eight feet high, and if

you secure it from being blown down, more would be still better. If you have plenty of ground, a hedge of evergreeus will cost no more than a board fence, and will continually grow better. Consult your nearest nurseryman tor particulars; you are sure to be humbingged if you even consent to talk with "tree peddlers."

These wind breaks are wanted even if your bees are wintered in-doors, and should not be neglected. In regard to ventilation, for out-door wintering nothing need be changed from their usual summer condition, unless it be to nearly close their entrance; but as this is liable to become stopped with ice or sleet, some upward ventilation should be given in such a way that it cannot become closed with snow or ice. A quilt made on pur-pose or any woolen blanket or clothing spread over the frames seems to answer best, for it prevents a strong current of air through the hive and yet allows them all they need; of course this covering must be well protected from the rain. Should the sun come out at any time very warm and bright after snow has just fallen, it may be well to shade the entrance with a broad board, as has been offniones recommended

Now when we consider that out-door wintering is almost always unsafe, can we not, with less trouble, put even one colony in the cellar? Where a dark, drywarm cellar is at hand we should have no

doubt in the matter.

Much has been said about double 'walls for hives, and hives packed on all sides; but aside from our own observation (we have just gone over the whole file of American Bee Journals for the past seven years, as in fact we have all the other bee journals published as well, but their evidence is so meager compared with that of the A. B. J., we hardly consider them worthy of mention in order to glean facts on this subject particularly,) the evidence seems to be that hives of thin lumber placed in the sun do as well or better than the double or packed walls.

We should bear in mind that strong colonies winter well (or have in former years) under almost all circumstances and many times when some new arrangement has been tried, the credit has been given that, whereas it simply did not binder them from wintering well. Many cases are mentioned of bees wintering finely in hives without bottom boards or with great cracks in, and, in some cases, almost without hives; yet no one advecates such a plan. To sum up, we should say the arrangement for out-door wintering that gave them most sanshine, with the fullest protection from the wind and rain, would succeed best.

A single colony cannot generate the amount of heat that forty or lifty would, and we think it very doubtful about their being henefited, even had they a covering one foot in thickness on all sides. Would not a single pail of water freeze under such circumstances? Yet if it were buried in the ground, below where frost would reach, it assuredly would not, and so we would put our one colony in a frost proof cellar, or leave them full in the snu. It is well known that they will hear a very low temperature for a short time—a few days or a week—if they can only be warmed up occasionally, to enable them to fix up for another cold snap. It you live in a region where the cold may continue ten days or more below a zero temperature, we advise a cellar or frost-proof bee house, by all means.

To those who have five colonies or about that number, we should advise as above, only that it would probably pay to have a small part of your cellar enclosed, so as to be perfectly dark. Objections have been made to lastening the bees in with wire cloth, yet, when housed, many succeed in so doing without irritating the bees at all, and it has the advantage of preserving the floor free from dead bees at all times: also, if the temperature should rise to 50° or more, many get out and fail to find their way back; besides, in earrying the bees into their winter quarters and back again, a bump carelessly given would not result in the loss of bees. More experiments are needed on this point, and we hope to be able to give the result of some in our next.

We have just seen an apiary of forty stocks or more that were so confined, and kept in a cellar that was but slightly darkened; yet no bees objected to the confinement, and very few were lound dead on the bottom boards; no colonies were lost at all. They were fed on sugar syrup, of course.

As soon as you have a dozen colonies, we would advise a bee house such as we have described. A good cellar may answer, it is true, but a house made especially is much more convenient. We really hope our friends will have all feeding finished up soon after they receive this, for we wish to advise in regard to placing the different kinds of hives in-doors in our next.

Sept. 27th. Bees are working quietly on a half barrel of sugar. Cider will deserted.

#### QUEEN REARING.

MHORTLY after our last number went to press a number of cool nights nights rendered our fifty four cage queen nursery inefficient to keep up a brooding temperature, and many queen cells were lost, but its great convenience during warm weather made us loth to give it up. While studying on the matter we observed that the copper reservoir of water on our Spewart stove, kept warm even after an interval of many hours, without fire, and that a body of water changes temperature quite slowly. To be brief, in less than half a day, Novice, with some assistance from his friends the tin-smiths, made a simplicity hive, all of tin, with double walls and having a fixed bottom double also; the space between the two containing about eight gallons of water. The stove used last spring was again set up in the bee house, the top removed and our hatching nursery placed on it, making the joint close with strips of woolen cloth between the tin and iron. A shallow tin lamp made to hold about a gallon, and supplied with a common burner and chimney, was placed on the bottom of the stove, and so arranged that it could be replenished with all by simply opening the stove door.

After about twelve hours, our thermometer inside showing a temperature of about 100, the lamp was turned down considerably, for hives rearing queen cells showed on an average only from 86° to 90°. Well, with some solicitude we removed several frames, containing cells to our miniature conservatory, and were rewarded by seeing very soon large yellow queens uneap their cells and walk forth with all the strength and vigor of those reared in June and July.

As we dislike to cut combs and brood, as we must do to give each cell a separate eage, we propose leaving them all as built in the hive and trust to our skill to "keep peace in the family" by visits four or live times a day. Now please try and imagine our exultation, kind reader, when we discovered that the queens could be plainly heard guawing out of their cells, and that by holding the comb to the ear the precise cell could be selected and the queen liberated, and safely caged un-til we are ready to introduce them. The apparatus works most heautifully, for the temperature can be kept to a degree, if necessary, by turning the serew to the lamp, and after the cells are scaled we think them safer thus than in their own hive even. From one strip of comb containing thirteen cells we hatched out twelve line queens, and at one time we hatched eight in one day. In fact we have supplied each one of our queen rearing colonies with line yellow : queens in so short a time since starting the apparatus that we begin to wonder what we shall do with our rapidly increasing family of infantile aspirants to royalty.

Since the cool weather they are very tardy indeed in beginning to lay, but should they not become fertilized this fall, we can, at least, give the matter of hatching queens by artificial heat a good test and be ready to commence early next

The combs are covered with a quilt, of course, to prevent too much escape of the heat, and it is essential that a stove be used with a pipe to eary off the products of comhustion, for even a lamp burning continually would render the air impure. The expense of oil is from one to two cents per day and our hee house is kept comfortably warm by it even during frosty nights. We have no doubt but that the apparatus could be used for hatching eggs and may he brooding the chicks afterward, also for a miniature conservatory for plants, if a glass ease he put over it; but we leave the subject for others as our province is only hee culture. In case ol' a weak colony suffering from dysentery, they could be quickly warmed up and fed wholesome food and then, combs, bees and all returned to their own hives. The expense of the whole need not exeeed four dollars, for any tall stove will answer; but we presume the expense of oil necessary to give the required temper-ature, would depend very much on the room in which the whole is located; our bee house retaining heat a long time when once warmed up. We have no trouble at all, as yet, in introducing queens just hatched, and as a proof that the bees do not recognize such as queens, we will mention that on giving brood to a colony when the queen (given them the day before) was called missing, they started cells and produced two large fine ones. On entting these out on the tenth day to give them another queen just hatched, a live queen, appearing at least a week old, was found endeavoring to destroy them, but was prevented by the hecs. explain this by supposing they had not noticed her being in the hive until the cells were scaled and then they prevented her destroying them. These two cells produced two fine queens which were found erawling about in our conservatory next morning.

Should any one ridicule rearing queens by artificial heat, bid them ask experienced Florist or Market Gardeners if plants thus reared are not equal to those produced in the open air,

We should add that Mr. F. R. Shaw first gave us the idea of using a lamp but he used warm air instead of water.

Mr. E. C. Blakeslee and Willis A. Phelps, of this place, add their names to the list given last month of those offering queens for \$1. With the aid of the improvement mentioned in this No., we hope to be able to furnish them at the same rates during the whole of next sea-

#### OUR FALL DILEMMA.

MINCE 'tis the fashion, we too have heen moving our bees "where the flowers bloom," and Novice was dispatched yesterday with forty colonies and takes sixteen more to-day (Sept. 20) to a swamp twelve miles distant, where hundreds of acres of yellow "posics" are "wasting their sweets on the desert" or rather swampy "air."

Thirty-one colonies of two story Langetroth hives, with nuclei in the upper stories, were carried safely on a hay rack placed on a common lumber wagon. Strips were sawed just right to slip between the frames at each end and wire cloth was then nailed over the portico. As the covers to the upper stories would not fit over the lower ones, we were obliged to eary the whole bulky apparatus even if the upper story was empty. Never before did the Simplicity hives show their advantage more plainly; for they only required wire cloth over the bottom and they were ready, no matter how strong the colony, and as they could be packed close up, almost as many stocks could be carried in a light spring wagon as on the aforesaid hay rack. advantage of handling a light, plain, smooth box compared with the others (and yet their inside capacity is precisely the same) has decided us to offer our whole lot of two story. Langstroth hives, minus frames, for fitty cents each, if they don't sell for that, we propose breaking them up in the spring.

The first thing to-day will be to hang a colony on the spring reales, and we will report progress before going to press. There has been a reason besides the aloresaid flowers, for this sudden migration, and that is a neighboring eider mill. We were invited to call and see the "cider works" a few days ago and beheld perhaps more Italians in a body than we ever did before. They covered the pomace, had ranged themselves along the channels where the cider coursed, or generally coursed, and seemed all ready for the moment when the serews were turned; and indeed so well had they followed the business that almost every drop was sucked up as fast as expressed, and "nary" left for the "cider man." We told our neighbor, who seemed very fair and friendly when he found that we were so disposed, that we would take the bees out of his way at once; and as some of our subscribers tell us that the "swamp" never fails to lurnish fall honey, cannot we "kill two birds, etc.," by moving our bees every fall. Had our neighbur not hesitated to tell us the true state of affairs sooner, we should have had them removed a month ago. Of course every drop of eider and swamp honey will be removed by the middle of October, and we shall have to trust to "tea-kettles" and "Novices skill," to put our colonies all in winter trim so much later than we

have recommended.

## NOVICE'S Gleanings in Hee Culture.

#### A. I. ROOT & CO.,

EDITORS AND PROPRIETORS.

### Published Monthly, at Medina, Ohio.

Terms: 75c. per Annum. Any one sending as 5 Subscribers can retain 75c. for their trouble, and in the same proportion for a larger number.

#### (PRINTED AT MEDINA COUNTY GAZETTE OFFICE.)

### Medina, Oct. 1, 1873.

Ox page 55 July No. it seems a line was omitted in Mr. Pratt's article. After the words "old hive," read "and allow them to enter the new one," which, etc.

"My little girl sends love and a kiss to the 'blue-eyed baby," writes a subscriber; and we return the compliment hoping the "baby" may live to know all her friends, through "Gleanings," at least, if not in person.

"Mas, N." and "P. G." earnestly request our friends not to use magnifying glasses in viewing the photo, for the artist assured them that no one could see their eyes even if the blazing western snu did almost put them out. It was necessary to have all objects illuminated by the sun direct, for a well defined picture.

We have quite a number of complaints that a few who advertise queens largely have received money for them and will not even answer letters of inquiry in regard to it. We have written to these persons direct, and if they give us no explanation we shall give them the benefit of a free advertisement of their mode of doing business. We propose sifting out the nurreliable names.

Penners we should remark, in regard to our discovery in introducing queens just hatched, that Mr. Langstroth almost suggested the same thing at the Cincinnati convention, and that C. C. Miller, of Marengo, Ill., also said, in the American Bee Journal, some time ago, that it could be done with a colony constructing queen cells; however, strange as it may seem, we have found, as yet, no colony hostile to a queen just hatched, although a few have been missing the next day.

LAST month we made the offer of wire cloth for extractors by mail for 25e., but further experiment showed that the light, close mesh was unsuitable for very thick honey, and none could be found in the market just as it should be. As the coarse wire is heavier and costs more because made especially to order, we shall have to charge 15e, per square foot for it. The untinned, such as we have been using, we can furnish for &c. per square foot. If sent by mail, postage will be 6c. additional. We can furnish also very nice tinned wire cloth for queen eages, sixteen meshes to the inch, for 15c. per square foot; postage, 4c. per square foot.

WE hope our friends will accept our thanks for circulars sent us pertaining to bee culture. While most of them seem to have been sent out with a wish of doing a fair and honest business, we find it is hard to get over the old idea of "selling rights."

Busy Bee is sont for a three cent stamp, and, even if it does run a patent hive, contains considerable that is valuable and but few errors. We clip the following:

ARTIFICIAL HONEY OR BEE FOOD.

"During the winter of 1871-72 our bees were lacking supplies, and being anxious to obtain a cheap and reliable food I communicated my knowledge and observations on artificial bee food to an eminent chemist of New York, and employed his services to aid in compounding a food answering the same purpose as honey. After conducting a number of expensive experiments we sueeeeded in discovering a correct method for compounding an artificial honcy equal in every respects to the natural article, and at one-third to one-half the cost of honcy. To obtain this recipe has cost me nearly \$500.00, besides my time and experiments, but it is the sublime mode of making honey in every respect as good as that made by the bees, and if the simple directions are followed in mixing it will appear like amber, clear and fresh, free from wax and unfomenting. It will also keep in any climate. If bees are fed upon this Ambrosial Honey they can be wintered without any of the risks or other disadvantages consequent upon depending on the natural method alone for the needful supply. The Ambrosial Honey can be made by any one with ordinary kitchen utensils, and with very little labor."

"To enable beckeepers to satisfactorily compound this cheap and beantiful article of food we have the recipe printed with full directions to manufacture and use, so each one with very little outlay can have the benefit of our labor and expensive experiments. The recipe to

manufacture for individual use or apiary will be sent securely sealed by mail, post

"The recipe is coprighted and secured according to law. Parties receiving it are therefore cautioned not to sell the same or in any way make it known to others. It is warranted as represented or the money will be refunded."

Now if we haven't a fondness for good things, we don't know who has, and this "ambrosial"-Well, we have sent a two dollar greenback, and really we can hardly wait until the mails shall bring us the "wonderful" paper, If it wasn't for the law and copyright we would give the whole to our readers in place of a \$2 00 chromo, etc. On second thought we will give the whole thing in our next number to all our subscribers and take the consequences; and, furthermore, send us all the valuable receipts you can and we'll send the moncy to Mr. H. Herman Flick, Lavansville, Pa., or to anyone else; for "Gleanings" must contain all that is of value about bees or honey, no matter what it costs, nor how many suits at law.

## HEADS OF GRAIN FROM DIFFER-ENT FIELDS.

entripe entrip 91 .- I never had but one Italian queen (or

We believe we never saw a strong colony of Italians that did not store honey when others did, but we have reserved some very prolific nearly black queens until this season that did just that, i. e., clustered all over the hive in idleness while the Italians filled their combs, or at least slowly added to their stores. These black stocks required feeding to prevent starvation, and so we pinched the heads of two very prolific queens. There is so much diversity of opinion in regard to "side storing" that we opine that the progeny of some queens incline to work ont sideways more than others. (See "Can Our Bees be Improved?" in May

We think our friend, with many others. will find that in fine qualtity of extracted honey begins to sell almost as readily as comb honey, and prices begin to come

up very close.

92.—I lost last winter 2t out of 36 stands of bees on account of extremely cold weather; temperature was for two weeks from 30 to 40 degrees below zero. I winter on summor stand. Have increased my stock from 8 to 15 by natural swarming. Have tried your plan of double story for extractor on one hive; gave empty comb from hives I lost; extracted 28th of June 30 bs. nice honey from upper story with Gray and Winder's extractor. I have not disturbed the lower part of the bive. From my other seven hives I have taken four boxes of box honey, about 45 bs. in all, three hives not yielding anything. If pasture should be better in September, I may receive four boxes yet, which are partly filled now (about 40 ibs.) Next year, if we are spared, I shall try the extractor, provided pasturage is favorable. My bees are all natives. Have tried to Italianize them, but lost them in winter. C.A. Higold, Arcadia, Ill.

If our friend would get the full benefit

If our friend would get the full benefit of the extractor, he should "go below," too, and when he gets the Italians, he, and not the bees, should manage the swarming.

No. 93.—My bees have done very well. I have taken about 900 lbs, from my 25 stands. During the last of June my scale hive showed a gain of from 4 to 6 pounds daily; this month has so far been rainy, cloudy and cool, the gain has only been about I lb. daily. Mrs. Tuppers notion that it injures the brood to extract the honey from the brood combs is an unmitigated humbug. I have extracted the honey from brood combs overy season for five years and never injured any brood unless I turned too fast and threw it out. This year I am extracting the honey from all frames more closely than ever as I find it for the mutual advantage of both hees and my pocket. W. J. RONALD, Fairview, Iowa.

No. 9t.—I have made another hive, the mate to yours only not so rough. I'll say no more now. Stephen Young, Mechanicsville, Iowa.

Thank you, Mr. Y., we hope you and all others will say just what they think of our wares. We have no doubt many of our readers can do better work than we did, but we gave you the idea which was our greatest object. "P. G." scolded so much about the "knotty hives" that we linally did purchase better lumber.

No. 95.—Doar Novice:—I told you sometime age that I could not use a thin knife, but I have found since that I did not know how to use it, as I can now uncap very nicely and without hot water.

Chas. E. Widener, Cumbeland, Maryland.

We are quite glad to hear that others, as well as "P. G.," are learning what skill can be acquired with a thin knife. If made very thin and used on nothing but wax they can be kept very sharp, as they should be. It seems to us that hot water or any machinery would be much more trouble and after all not as rapid. NO. 96.—My bees are gathering hency by the harrel. Yours, truly,
N. E. PRENTICE, Castalia, O.

Jray 1st, 1873.

Right glad to hear it, hope they'll keep doing so.

No. 97.—Your extractor 1 believe to be a good thing, but having never seen one of any kind, I know nothing of the principles upon which they work. I must confess that I am more dumbfounded with its description than I am with the hive. Couldn't you get up a sample, of it also, that you could send by mail and charge enough to pay you? Very respectfully,

respectfully,

98. Can your gearing be attached to the Peabody extractor without much cost? I have one of them. In feeding bees in your "simplicity" hive, will it do to pour sugar syrup on top of the frames? If not, what is the best mode?

Chas. D. Ellis, Edentown, N. C.

We regret to say that we know of no way in which the Peabody extractor can be made better. Il gearing could be attached, the momentum of so much metal besides the honey would make matters but little better.

We have now on hand a half dozen Peabody machines that have never been used which we will sell for \$8 each; regular price, \$15. They will do excellent work, and very likely will never wear out, but the one who uses them we fear would.

99.—Most porticular P. S.—Fearing that my long sheet's contents would get somewhat erossways in your pile of anreadable letters, I have concluded to give you the gist — 'nothing but the gist.'' 1. How to make bees build worker comb only, and when to leed bees syrup—here—for winter. 2. Price of empty worker comb. 3. Could your seales be getten up cheaper than \$5, and is more than one pair needed in an aprary? How do you rig a hive to at any time weigh with the seales? T. J. KENNEDY, Custalian Springs, Tenn.

Bless your heart, friend K., we have never yet had a letter on the subject of bee culture that was unread, though some of them required even P. G.'s utmost ef-forts (she has been a "school marm" fourteen terms), and we think they have all

repaid the time spent.

1st. We don't know. This past season we were so well pleased to see them build comb at all, that we were not over-particular. We keep drone comb out of the way of the queen, and find it just as good for the extractor. A colony with a young queen is not as apt to build drone comb, and by reducing the worker force we think it can almost always be managed. Few things are positively certain with bees.

2d. Novice suggests that our best worker combs are worth a dollar apiece to us, but P. G. says we don't want to sell 'em at any price. Won't some of our subscribers offer them cheaper, i. e., in metal cornered Langstroth frames?

We should consider but one pair of scales necessary in an apiary, and we keep a one-story hive permanently hung on them. It is held by a wire running under it, and is kept from swinging by the wind too much, by two more wires attached to front and back carried horizontally to stake; leaving it to rise and fall by each ounce of increase or diminution.

Again, \$5 is too much for an implement like that for bee culture. But that isn't the worst of it. Our stock is sold out, and dealers and manufacturers now say they cannot furnish any more at less than \$65 per dozen; that ours was stock remaining on hand, etc. Novice threatens to study up something for about a dollar that will tell when a hive is gaining or losing at a glance, but even then it's very convenient to have seales that will weigh accurately when we are feeding for winter, etc., and as they must be weatherproof, perhaps they can't be made any cheaper. It is just fun for us to know every onnee of success or the contrary. To illustrate: our bees have been goings northward of late as soon as daylight and almost sooner, and on returning they were covered with yellow dust. By the time the scales had shown a few ounces increase, Novice investigated, and found a ten acre cornfield that it seems had been planted with pumpkins, and eorn put in occasionally. The time was sunrise, or shortly after, and he claims the hum of industry that arose from a sea of yellow blossoms (rivaling anything in Vick's collection in size if not in splendor) was enough to-to-well enough to make any spring balance feel the effects of it. In a few days the grasshoppers, too, discovered the nectar, and they seem now to be disputing with the Italians as to who shall get up earliest.

No, 100.—I have kept bees in Iowa for five years, and I think it is one of the best States in the Union for bees. But our best honey harvest is from the middle of July till last of September. I kept black bees for 2 years und did not get a pound of surptus, and the summer I gave them I talian queens I got over 300 pounds from 5 stocks. I use the Langstroth hire exclusively. hive exetusivety

ALFRED McMains, Chariton, Iowa. No. 101.—My extractor quaturisment, white a charm;" the only trouble is the strips of fin eame very near cutting the first pair of combs into four inch strips; however, I soon learned to turn slower and did not cut them so badly, but think the wire cloth will be much better. My extractor is a house unde one, but I think it is on the right principle: stationary can, revelving frame, Any man that gots me to raise box honce for him after this, will have to pay me at least three times the price of extracted honcy for it. to 101.—My extractor (just finished) works

Nothing gives us more pleasure than to hear from those who are succeeding with home made implements. There is a species of independence in being able, when needful, to make materials at hand answer our purposes that we always admire.

INITE.

No. 102.—I will enclose you a letter from the young man who took my bees to Iowa. If my bees do any thing like what they report there, I will be happily disappointed. I had counted on exagerations; having extracted nearly all the honey and reduced the hives in bees as much as if they had swarmed, it was as much as I exported that they would build up to proper condition for winter, as throw they would have necuminated nothing here.

We winding at the prospect of Mr. We.

We rejoice at the prospect of Mr. W's. success in his project, and enclose ex-

tracts from the letter referred to:

Harrah for Basswood Ten and fifteen pounds stored in 2½ days. Gallap says the first crop at least is mainly a failure. Mr. Lindloy here says if I had got here one week sooner they would have stored several times as much. Hundreds of Linn trees perfectly covered with bloom. The hency nice and thick. If they store at this rate I will soon have to extract. Went to see Gallap, He's avery pleasant, senseible man, with lively flow of good humer. Not a single colony died on the way here. Generally in good condition I think, Just 165 hives, (yours) counted twice. Had an awful hard fight to keep the beos from smothering on the way. Used good many barrels of water on them. You knew how they squeal when smothering. Water only saved them. W. Harrason, "Beekcopers' Paradise' (Osage, Lowa.)
No. 103.—Tho days have been sunny with

Water only saved them. W. Harmson, "Beekeepers' Paradise' (Osage, Iowa.)
No. 103.—Tho days have been sunny with cold, frosty winds, so that every hee that was enticed by the sun to leave the hive, was cut down by the frost. What would you do in such circumstances? To return the bees to their winter quarters would be considerable work. The 'Gleanings' informs us that the entrance to all your hives are toward the cast or west. I am very curious to know why. Is it to keep the bees within doors on unfavorable days? Another question which I wished to put, not to a Novier, but to one of Novice's experience in bee keeping: During the winter months, are the frames of hives to heleft as close to one another as in summer? I am under the impression—though I never acted upon it—that if the bees had more space in the center of the hive to form a cluster, they would winter hetter. Combs partly full of honey and bee-bread passing through the cluster must, I should think, operate against them. What say you on this? If I could get all my hives from winter quarters, and through the spring season, in as good condition as I find some of them, I could set only does not succeed as well as the other, whom, as far as I can see, all things are alike. I know some bees consume more food in winter than ethers do. This perhaps may affect them, as toe much food affects the slutton. One winter I had a good colony that wintered well and required no teeding in spring with 15 lbs. of feod: another of equal strengh, and next to it in winter quarters, almost perished for want of food hofore I got them to their summer stand, though they had double the quantity of food the others had when put into the cellar. So I feel that I have much to learn yet about bees.

J. Andrewson, Ontario, Canada, Apr. 10. We have experienced the same trouble our friend mentions, and know of no remedy except to build a high, tight fonce

our friend mentions, and know of no remedy except to build a high, tight fence on the north and west sides of the apiary, and in fact on all sides if it be so arranged as not to obstruct the sun. Such a fence makes a different climate, almost, and bees regain their hives where the wind would otherwise destroy them. belt of evergreens when grown would be Our trellises ran east and excellent, west, that the vines may shade the hives in summer, and our hives obstruct the paths less and leave the best place for working on the north, side when placed cast and west, for no other reason. As we like the sun to strike them in the morning we have them all east. Will some one who knows answer in regard to more room between the combs for winter. We, too, "could astonish the world" if we could make all colonies equal our best; and we are laboring with "Gleanings" for just that result, or that some of our subscribers who have got the energy may do so, when we unitedly work and study out

the way.

104.—I have succeeded in getting ten good queens from the hatching of eggs I got from you July 2d. I am much pleased with them I term them my five-cent queens. Who can beat that for cheap queens? S. H. MILLER, Ashland, O.

We are very glad, indeed, to hear of the above success with the eggs, simply because it shows that 'twas not all an error. However, so many failures were reported that we think queens for a dollar much the surest plan for Italianizing.

No. 105.—I have received over 100 lbs, comb honey from one colony. Honey was made in frames; Langstroth hive. Wintered in cellar—taken out in March, and fed sugar syrup all they would take, perhaps two pounds per week, until May 7th, when they sent out a large swarm, netwithstanding no blossoms were out at the time. Swarm was roturaed. Bees were hybrid. One comb weighed 21 bs. Colony was built up in the fall with sugar syrup and was wintered entirely on sugar syrup.

Chas. Root, Sheffield, C.

The above somewhat shakes us in our belief that plenty of food sealed up in the combs gives us all the advantage of feeding liquid food daily or two or three times a week. In this case, also, the large yield of comb honey was at a time when other colonies in same locality gave no surplus at all, for they were at that time getting built up into condition to store surplus. With fifty colonies or more feeding twice a week even, is a task, and is seldom attended to promptly. Novice suggests that with "cav apiary" (see problem 17) an arrangement could be made to feed the whole at "one dose."

#### TTEMS.

those who only subscribed to "Gleanings" as a quarterly, and we have mailed all such, six numbers instead of the four promised, and presume all are satisfied that they have received their 25 cents' worth, unless, forsooth, there be those who would have been better pleased with a lesser number than a greater; for we do know, kind reader, that, in this age of periodicals, such things are sometimes a nuisance.

Now, in view of this, (for we should be very sorry indeed to send any one "Gleanings" who did not value it,) we propose, for the year 187t, to have no non-paying subscribers, and to send it to none, not even the *President* or *Queen Victoria*, should they happen to be bec-keepers unless they manifested their wish to receive it by the usual remittance of 75 ets.

Of course we will with pleasure send sample numbers when requested, but in-asmuch as we like full liberty to purchase what we choose without urging, we wish our friends to fully enjoy the same freedom. If we succeed in making our little sheet of such importance that our friends find it a good investment, we will welcome subscribers and do our best to serve

them; but we wish it to make its way en-tirely by its own merits. We expect to be able to furnish back numbers to all who may need them, at all times. Shall be pleased to exchange with alt other bee journals, and will eleerfully pay the difference in price.

We see by the Bee Keepers' Directory just out (first number) that its editor, N. C. Mitchell, proposes to "sail along the shore in shallow water." He also advertises "dollar bee hives;" but he don't sell them for a dollar-he only sells us a right for ten dollars, and then we can make them with frames and all painted for a dollar or less. His mode of "making comb" is now sold away down to five dollars, and we are going to send him the five dollars to get it for "Gleanings," i. e., when we get the "ambrosial honey," if it is good. Mr. M. also "teaches school" a good deal cheaper. His hits in the Directory on ventilation are certainly not very far wrong, and if he didn't always keep wanting to sell receipts and "rights" for ten dollars or more, we should really like some parts of his quarterly. Cineinnati: 25e. per year.

We are happy to add that we have found the serew mentioned in our last, for the queen-rearing eards are entirely unnecessary. Common brass pins driven through the eard into the hive half their length and then bent at right angles answer every purpose, as the head of the pin plainly designates the date or condition of things. The pins cost almost nothing, and do not rust by exposure; and so the expense of the device is only one cent per hive; the convenience of it can only be appreciated by use.

#### PROBLEMS.

are as many as are profitable in one O. 17 .- Granted that fifty colonies locality generally, and that more honey could be secured by giving them a locality iu autumn different from their summer Could not a wagon or ear be constructed, perhaps something on the plan of a photographer's ear, that would give the whole fifty the requisite room and space between each hive, and have a permanent place thereon, a light room to be arranged for extracting in the center, and the hives arranged around the outside? The winter repository to be arranged so that the whole can be run in and housed in a minute or more, and as quickly brought out to have a fly during a warm day in winter. A simple mechanism could be arranged to close all entrances with wire cloth at once, and also to open them as quickly.

When pasturage is searce, single hives hung on spring balances could be located at desirable points for ten or fifteen miles around, and when one of these showed that honey was coming rapidly, our trav-

eling apiary could, in a few hours, take advantage of the yield. Many other advantages present themselves, such as quickly housing our bees during severe frosts in March or even April, likewise some disadvantages. As several have this season reaped rich rewards for moving bees where they could have fall pasturage, we think the matter an important one. Nunn Bros. report 1500 lbs. in about one week by moving their bees only a few counties west. Further reports next month.

#### HONEY COLUMN.

E have sold all our honey but one barrel for 18c., and the demand seems to exceed the supply for fine clover honey. There seem to be many buyers at good prices, and many of our friends have sold their erop already at

Give us the items, if you have any to sell and don't get fair prices at home.

We take great pleasure in inserting the following extract from a letter just ree'd. The more so as Mr. Chas. F. Muth's name is quoted very fair and our readers can rest assured that he is both reliable and responsible: "I will pay for all the choice white clover honey I can get, 16 cents per lb. at Cincinnati depot. I can use a few bbls. of dark or Linden honey, and l may get a good demand for the latter before long, but do'nt think I could pay more than 13 cents for it.

Chas. F. Murn, 976 and 978 Central Avenue, Cin., O."

Doleful again. A series of severe frosts. cut short at one "fell sweep" both the "swamp posies" and Novice's hopes, and to prevent demoralization our bees have been returned to their homes In regard to the cider mill, Novice, when baffled at Problem 17, turned desparately to the solution of Problem 15, and he and the bees, are now rejoicing at what seems to bid fair to be a great suecess, viz: Employing robbers and all hands at work on dry sugar in the open air, exposed to the sun but protected from rain. Further particulars next month.

#### ADVERTISEMENTS.

Advertisements will be received at 10 cents per line cach insertion, cash in advance; and we require that every Advertiser satisfies us of his responsibility and intention to do all thathe agrees, and that his goods are really worth the price asked for them.

THE PRICE FOR ITALIAN QUEENS
after the 1st of August, will be for
Tested Queens, \$3.00
Warranted Queens, 2.00
J. SHAW & SON, Chatham Center,
I. E. DANIELS, Lodi,
Medina Co., Oc.



Or how to Realize the Most Money with the Smallest Expenditure of Capital and Labor in the Care of Bees, Rationally Considered,

#### PUBLISHED MONTHLY.

Vol. I.

MEDINA, O., NOV. 1, 1873.

No. 11:

#### STARTING AN APIARY.

No. 11.

E have just returned from a visit to a friend who wished us to put his bees in winter trim; and to illustrate how little care is really necessary for moderate success we will mention that we sold bim two colonies of Italians in Langstroth hives about April 1st, 1872. At the same time be purchased a third in a hive labelled 'Prof. Flanders' and something else, we can't remember what, but the frames were triangular. We located them at the time as we thought most favorably, and saw them no more until sometime in June, when we occupied about an hour in swarming the three artificially. We did this with two of them, by simply giving a new bive placed on a new stand, two frames of brood and the adhering bees, with perhaps five empty cambs from the upper story (the two hives we sold had a full set of combs above as well as below); the Flanders bive we swarmed by shaking about half the bees only in a new hive, and giving them, as with the others, two combs of broad and five empty combs from the Langstroth hives.

All three made good strong colonies, and in October (same year) we prepared the six for winter, and took out over 100 lbs. of comb honey in frames, after giving an ample supply for winter. As no bee cholera has ever been known in that locality, we were not surprised to learn that all of the six wintered linely. They stood out doors on the summit of a hill, within half a mile of Lake Eric, and the wind was often such that the covers of the hives required to be fastened on; yet they had no covering except the cloth quilt we used, they of course being confined to the lower story. They did well, because their food, although natural stores, proved to be wholesome.

This season our friend, buding artificial swarming so simple, decided to do it himself, and would doubtless have done it all right, had not the six "simplicity" hives

we sent got delayed somehow, so that four swarms came out and at least two went off. However, he made swarms from four of them, and three of these we have just examined and found in nice condition, but the fourth contained no queen, and only a handful of bees, and as the greater part of these were drones, we " presume they failed in rearing a queen and the drones came here from other colonies. With these few Italians, however, we found the combs clean and no trace of the moth miller. We saved out some comb honey after giving the nine colonies an ample supply, and learned they had extracted about 200 pounds, which had been sold for 25c., making an income of \$50 besides the value of the three new colonies, which were fine Italians; all the result of our friend's own management, entirely.

We were amused to find that our friend had used the bottom boards to the simplicity hives upside down. No harm, had resolted, except that a few pieces of comb were built below the bottom bars.

Now we have an idea that this would be most an excellent arrangement for wintering, for all dead bees would fall into this space and be easily thrown out in the spring, and we should also be relieved of the necessity of having our sheltes more than a foot wide in the bee house (see page 26, April No..) which would give us more room and greater case in handling the hives.

As the lottom boards are usually more or less soiled, and the covers are not needed in-doors, we can simply put them under the hives instead, so that our bottom board can remain on the summer stand all winter, and will be ready when we set them out in the spring, door step, and all. In this case it would probably be well to paint the upper side of the bottom board as well as cover, but we really don't know from experience whether the painting of the bottom board would assist or retard the elforts of the bees at tidy housekeeping. We have always found them quite ready to appreciate all efforts at tidiness, such as sweeping the dead bees away from the front of their

hives, etc., and one colony persists not only in cleaning away all loose sticks, gravel, etc., but actually tries to pull up the weeds and grass when we are so careless as to permit any to start.

Well, our cover inverted under the bottom board of course closes the entrance, and we hope we are infringing on no one in considering lower ventilation unnecessa-Now, so far as this we have had experience, but in confining the bees to their bives entirely by putting a sheet of wire cloth over the frames (under the quili) we have not; but still, as we have ecided to try our own in that way, we shall describe our method; if we dislike the arrangement we can at any time remove the wire cloth. In order to have these sheets of wire cloth fit nicely and not have their edges rough and incon-venient, we shall have them lined with strips of folded tin. These will be put close down on the frames and the quilt over them about the last day the bees can fly before going into winter quarters, thus grying them time to get perfectly quiet before their removal.

Stocks that persist in keeping up an excitement can have the quilt turned back or even removed entirely; but with stores of pure, wholesome food we have little fear but that they will be quiet with the quilt tucked sningly over them, the wire cloth only being required when we are carrying them in or out, when we wish to make examinations or when they get restless toward spring and need addi-

tronal ventilation.

Our readers will perceive that we again have occasion to remove the cover of the have when wintering; in fact, we don't want covers on when they are in doors at all: and that reminds us that we have had as yet no satisfactory solution of Problem The combs in the upper story we usually remove just before feeding, at the time when we look the colonies all over and select the best worker combs for the wintering combs, so that when broodrearing commences in spring we are "all right to go ahead." After feeding, about the most convenient place for these surplus combs is in these same upper stories, and when carried away for that purpose the covers are needed over the lower one; when but out in the spring they are needad again until June, when we bring out 'Tis true our surplus combs once more. that by having the cover hinged permanonly on the upper story, we may get along very well by shifting the combs into that, or the reverse, especially if metal cornered frames are used; and that is the way we have done, but this plan of using the covers under the hive almost necessirates loose covers. It is true "Scientific" gives us a plan on page 48, June No., but we never quite liked the way it worked, i. a, it don't hold the covers firm, and is somewhat in the way.

We think Novice's solution under the bead of Problems will be found to meet

every requirement. We have just commenced using them on the hives now being made.

If our Langstroth hives are not all sold before going into winter quarters, we shall prepare them by tacking wire cloth over the portico, leaving the entrauce blocks as usual, and covering the frames with the wire cloth and quilt, as above.

#### REPORT FROM ADAM GRIM.

THE hard winter, fearful spring and poor summer had almost ruined my stock of bees. By incessant feeding and doctoring, I have with the aid of the spleudid fall weather, succeeded, not only in restoring my colonies to good condition, but increased them from 485 (I sold 30, and lost 105) to 850, which I will winter. I extracted no honey but seemed 3,500 lbs of box honey for which I am offered 28e a pound. A. Fuerbinger, who lost only 3 colonies during winter and spring, out of 98, got from the remaining 95, 23 young, natural swarms, and 2700 lbs. of box honey which he sold at home at 24 ets a pound and 1400 lbs. of extracted, and his bees are in splendid condition. They are mostly good hybrids. This man makes, estimating his young colonies \$8 per hive, clear \$1000 from 95 colonies in this moderate good season: He is a cooper by trade, but says he will hereafter only make his own barrels, and put all his time into beekeeping. This is very encouraging, but I will give you another picture. W. Wolfhere had, two years ago this autumn, 181 extra good and heavy stocks. He sold in all 17 colonies and had only \$50 worth surplus honey last year and only \$5.00 worth this year. He now has 39 colonies. Of course he laments over the poor season, claims that he has no luck, when in fact it is nearly all duo to his carelessness. If he did not know what to do, could excuse him for his failure,  $W_{\mathbf{e}}$ 

have in this neighborhood, 45, 35, 131, 2661, 25, 60, 120, 3500, 200, 224, 500, 118, 59, 6, 12, 850 30, 24, 75,

100, 125, 60, 15, 17, 3, colonies of bees, or in all 1423, that produced 9078 lbs. of surplus box honey, and 2740 lbs of extracted honey. The above numbers of stocks including the young colonies, which numbered 550 colonies, leaving 873 old colonies which yielded on an average a little over 10 lbs. of box honey, and about 3 lbs extracted. But only three beckeepers extracted honey and a very little at that. This is a very poor show when compared with the season of two years ago, when my average yield was to my recollection, 73 lbs to every hive I started with in the spring.

Yours Respectfully, Adam Grim, Jefferson, Wis.

P. S. I forgot to state that I took home last Saturday evening, 9 colonies of bees, in whose neighborhood a cidermill

had commenced working that day, The owner of the farm stated that the bees had worked very briskly on the cider. Five of the stocks were not opened on Saturday-remained shut in by a wire sercen put hefore the portico 8x12 wide until Monday night. I was terror-struck to see from a pint to a quart of dead bees in three of those hives. Several hees were examined and found to contain a large drop of some kind of liquid not in their honey bag, but in their extremities. This makes me think that eider is very injurious. Perhaps those bees would not have died if they could have discharged their faces. Two years ago the hees of my home apiary had been weakened so much by working on cider, that they came very weak through the winter, and amounted to nothing at all the next summer.

Many thanks, Mr. Grim. We value the above report as it gives an idea of the profits of beekeeping as it really is, generally the country over, and presents no exaggerated inducements to beginners, that will be sure to lead them to disappointments. In regard to the eidermills, P. G. has insisted all along this fall that the number of dead and dying bees in front of our hives surely indicated something wrong. Novice suggested that it was only old hees whose span of life was "spun" out, but after sweeping the ground clean, in a very short time it was again strewn with their distended bodies, and many of our stocks are so sadly depopulated that if they all winter safely twill he a wonder indeed. Since the dry sugar experiments, matters have much improved with the exception of the time when many hees were lost in working on the dampened sugar.

#### HOW NOVICE FED OUR BEES.

OUR barrels of sugar were purchassed about Oct. 1st, at an expense of 11\hat{g} c per pound. We could have had it for even 11, two months earlier, but we make it a practice as a general rule to buy as low as we can when an article is needed without attempting to speculate on the probable rise or fall of any staple commodity.

As Novice expressed a very sanguine belief that he could finish the whole feeding in three days if furnished with plenty of "tea kettles," the whole matter was turned over to him alone, and he commenced operations at 3 o'clock, Oct. 8th, the day being very fine though cool

towards evening.

A large pine box lined with zinc, of capacity equal to four harrels, was the only material used, not found in every household, and this had been originally made for another purpose, but has been used in our apiary to keep empty combs in, etc. The barrels of sugar were in the hee house where they had been rolled from the car. Well, at 3 o'clock as we said before, this zinc lined box was placed in

front of the bce house at about six feet from the door, the light ladder used to gain access to the loft, was placed so as to form an incline from the threshold of the door to the edge of the box over which is projected beyond the lother edge of the box of the box.

of the box.

It is clear that with this arrangement but little strength and very little time was required in rolling a barrel up so that it rested directly over the box, removing the head and dropping the whole contents without waste into the box. The next operation was to pour the contents of a large washboiler of boiling water on said sugar, and as the quantity seemed insufficient the contents of the teakettle found on the stove were used also. The absence of said utensil, when preparations were being made for the evening meal, Novice failed to consider at all, and in tact had he done so it would probably have troubled him but little, for when he is at work at a project for shortening labor he seldom considers its bearing on other people or things, at the time.

When he judged that the boiling water for a harrel of sugar was sufficient, rapid dissolution was the next desirable point and a hoe was hastily divested of the greater part of the accumulation on its blade, when Mrs. N. ventured to remonstrate, on the ground that the garden hoe was hardly a tidy implement for such a purpose; he replied that she did him injustice for twas not the garden hoe, but the one used in the stables. (Novice here insists that with the aid of said teakettle of boiling water the hoe was made perfectly

clean.)

Perhaps fifteen minutes was occupied in acquiring the art of using the hoe to the best advantage, which consists in making a channel in the sugar and then forcing the hot water along this with considerable force by keeping the hoe constantly submerged, and directing the current toward the sugar until it all disap-

pears.

After supper, the undissolved sugar had scttled to the bottom and the syrup above remained clear and about the desired consistency. A shelf was suspended in the hox on which to place the feeders, and the syrup was dipped up with a coffee-pot and poured into them; whenfull the feeder was inverted on the shelf to see that noue ran out, and then carried in this position to a hive that had been previously uncovered. Before returning, the next hive was nucovered and so on; by thus saving steps, twenty hives were each sup-plied with the contents of one of the teakettle feeders, before 6 o'clock; and in short a whole barrel of sugar was made into syrup and fed to twenty hives in less than three hours. In proof that syrup can be made in this way without the addition of other ingredients to prevent crystaliza-tion, we may state that at this date, Oct. lith, the symp is, the greater part of it, nicely capped over, brood is to be seen in all stages and a healthier state of affairs

inside a bee hive we never saw. -From previous experiments we were fully satisfiëd of this before, and we are inclined to think now that stores of puce sugar are healthier than where either cream of tartar, vinegar, or glycerine are used. About half of the twenty feeders were empty next morning, but some colonies take it so slowly that two days or more are required. As we have mentioned, with this first barrel everything worked beautifully, but the next afternoon another one was prepared precisely the same way, only that the extra teakettle of water was amitted thinking perhaps the first lot of syrup was n little too thin, the consequence was that more stirring was required and the syrup when cold produced thin sheet of sugar on its surface. This has candied somewhat in the cells, has daubed the bees to some extent and they have been longer in taking it down, but these difficulties are only temporary as

will appear further on. Our first feeders were kept the proper distance above the frames by ordinary "tenkettle ears" soldered on in such a way that two of them, and the serew cap for filling, formed three legs as it were, for them to stand on. Now these "ears" have a rounded end that forms a very insecure support, unless they are arranged very carefully to stand in the centre of a top bar to the frame, so insecure, in fact, that once or twice they have tilted so unch that the syrup ran over the combs, on the bottom board and crystalized or hardened there, and to observe the effect we let it remain so, but have found, as we had expected, that "onr bees" when they have finished their feeder go to work and work up all this sngar or candy; in fact we have never failed to have them do so, and this morning being a damp one we were gratified to find the bees busily working up quito a sheet of the candy that had formed in the portico, the hive having been tilted backward when the feeder "tilted," to save the syrup. We have observed such eases before but always find the bees, hive, and combs clean after a week or two. Still it is a nicer and quicker way to feed the syrup moderstely thin, say about five quarts of water to 20 lbs. of sugar, instead of a gallon. Mr. Alley and some others who objected "our receipt for syrup as being too thick, were probably right about it and we hereby thank them for the criticism. It was overlooked perhaps, as we have been accustomed to add water to the sugar without taking the trouble to weigh or measure, nor should we do so now, for the matter is not one requiring exactness. If too thin the bees will quickly evaporate it, and if too thick it may cause them a temporary avnoyance, but by bringing water they can soon remedy this fault.

A burrel of sugar contains about 300 lbs. and costs about \$34.00, and divided between 20 hives gives 15 lbs, of sugar, worth \$1.70. Who would not invest that amount per hive if they could feel sure

that it supplied them amply with a food at all times wholesome?

Very heavy stocks, or those wintered out of doors, might require more before firnit trees furnished in supply-next May; but we think the amoint mentioned, safe in the majority of cases. Should any of our readers have colonies yet destitute when this reaches them, if they are strong in bees they can yet be fed up; and 'tis our impression that the very best stocks in 1874 will be those that were entirely out of honey in the fall and had stores supplied them entirely of sugar.

plied them entirely of sugar.

The manner of feeding just given we consider the quickest, simplest and safest of any having come under our notice; and Novice now agrees to undertake feeding 100 colonics their winter food in one day, providing the honey has all been previously removed and that he can have plenty of

TEA-KET-TLE FEEDERS.

Oh, yes—those "ears." Well, our tinsmith "run ont" of "ears" (for tea-kettles we mean.) and before we knew it, had made a lot with supports formed of a piece of tin 14xt inches, folded like a letter V, and soldered on in place of ears. These, having a point of support 14 inches wide, stand firm on any frame or across two; and we like them so much better that we hope he will never get any more ears.

We have tried a ring of tin for a support, but it "cuts bees in two" when we work fast and does not seem to ufford them the liberty to work that the V shaped feet do.

PROBLEM NO. 18.

ANNOT those bee keepers who own orchards of sweet apples and a eider mill do a thriving business in the fall in making eider honey. With very little trouble it could be so arranged that no bees need be killed or drowned, and we think the honey would command a very fair price, labeled as "Apple Honey." About six barrels of sweet cider would produce one of honey, we have estimated.

The objection is that such cider stores might prove unhealthy and thus depopulate our hives. But we imagine if the work were so conducted that no cider was allowed to ferment, no injury to their health would result. We have made the experiment of feeding a colony a gallon of sweet cider and it was quickly stored and produced very pleasant honey, altho' as they were working on sugar ut the same time we could not well keep the cider honey pure. Of course the cider honey must all be removed before feeding for winter, at least until some experiments can be shown to the contrary.

A lady in this vicinity gave her bees a mash of boiled sweet npples, last fall to make up their winter stores. We gave her a cantion at the time, but she was inclined to disagree with us. We learned in the spring her bees all died, but

have not learned the particulars.

## NOVICE'S Cleanings in Bee Gulture.

#### A. I. ROOT & CO.,

EDITORS AND PROPRIETORS.

## Published Monthly, at Medina, Ohio.

Terms: 75c. per Annum.

Any one sending us 5 Subscribers can retain Tac, for their trouble, and in the same proportion for a larger number.

#### **IPRINTED AT MEDINA COUNTY GAZETTE OFFICE.1**

### Medina, Nov. 1, 1873.

EXTRACTED honey has "got over" being a drug in the market.

WE hold the remainder of our clover honey at 22c, retail, or 20c, by the quantity.

WE are very careful to mail "Gleanings" correctly. Most of the failures have occurred where subscribers have omitted to give their county.

Tuz price of "Gleanings" for 1871 will be 75 cents, and should we cularge it, as we may do in case the circulation increases sufficiently, no farther increase in price will be called for. For \$1.00 we will include photograph of Apiary, or it will be sent to any one sending us one name besides their own at 75 cents.

by there are any of our friends who have not received their queens or money when this number reaches them, we hope they will advise us of the fact at once. Our limited experience this fall has convinced us of the great advantages that would accrue to all parties if the queens, like other goods, could be shipped the day the order was received, i. e., during the queen rearing months. Those old in the business may smile at the idea, yet we have faith that it can be done, and we shall endeavor the coming winter to make preparations to that effect. It seems to us that 'tis no very difficult matter for an experienced bee keeper, with lifty colonies, to rear one thousand queens in a season, and at one dollar each this would be a very fair income. Who will volunteer to assist in the work of disseminating Italian bees at prices which the masses ean afford to pay?

## HUMBUGS AND SWINDLES P TAINING TO BEE CULTURE

[We respectfully solicit the aid of our friends in conducting this department, and would consider it a favor to have them send us all circulars that have a deceptive appearance. The greatest care will be at all times maintained to prevent injustice being done any one!

#### "AMBROSIAL" HONEY.

FTER some delay we received for our \$2.00 the following:

II. II. FLICK'S AMBROSIAL HONEY OR BEE

Entered According to Act of Congress, in the Year 1873, by H. H. Flick, in the Office of the Librarian of Congress at Washington.

Fifteen Pounds White Sugar. Four Pounds Soft Water. One-half Tea-spoonful Tartaric Acid. One Tea-spoonful of Salt. Four Drops Oil of Peppermint One Drop Oil of Rose.

1 oz. Cum Arabic (dissolved 1/2 pint of

water.)

Put the whole in a brass or copper kettle and boil until all the sugar is dissolved, remove the seum and add 1½ pint infusion of Slippery Elm, (2 tea-spoonfuls of Slippery Elm bark grated, and 1½ pint water make the infusion.) When nearly cold add another 18, of good Honey.

THIS certifies that A. I. Root & Co.. of Medina, Ohio, are cutitled and hereby anthorized to make and use the Ambrosial lloney for their own use or Apiary, and no other, nor shall they sell to any one or in any way make it known to others.

Given under my hand and seal this 4th day of Sept., 1873.

[L, S.]H. H. Flick.

By referring to our last number our readers will see that Mr. Flick claims to have invented this during the winter of 1871-72, with the assistance of the "expert New York chemist," costing him nearly \$500, etc., etc., but it is really nothing more than a copy of the old honey recipe, without a single addition or improvement. In fact our readers will find the whole, with some valuable comments and suggestions thereon, in Dr. Chase's Receipt Book, published in 1867. The whole book can be purchased for \$1.25-seventy-five cents less than Mr. Flick charges for his one receipt. In his advertisement in the Journals Mr. Flick mentions his artificial honey in a way . that would lead renders to expect his Busy Bee to contain the process of making it, but when the circular is purchased

(price 10 cents now) we have the smooth falsehood only instead, to entice \$2.00 from the unsuspecting. From another part of Busy Bee we clip as follows:

"All the marvels of bec architecture and government, which so delight, charm and elevate the soul, point out to us a higher and lovelier state, where we shall not only see the Creator's wisdom reflected, but can see Him as He is. They are the Almighty's decrees, reflecting His wisdom, and cannot be violated with impunity. The patient and untiring aparian, who labors to unfold the mysterious nature of the honey bee, will, as he unveils the skill and power of the All-wise Creator, be taught a lesson well-calculated to clevate the mind above the gross and cannot here gather volumes of instruction and entertainment."

It is the greatest pity, Mr. F., that your pursuit has not as yet elevated your soul sufficiently to have deterred you from taking \$2 from your fellow men for something that was already common property, and worst of all to pretend it was the result of your own researches. Has it really come to such a pass that whenever we see Scripture quoted or appeals made to the wisdom of our Creator, we must straightway look about to see what new swindle is being prepared for us?

We at first proposed that Mr. Flick should go in company with Mitchell, but we feel sure now that the latter would be ashamed of such small meannesses. Oh, yes, Mr. F., we want our \$2 back. The recipe is not as represented. For bee feed, omit all the ingredients except the sugar and water. For table use it may do for a syrup, but no one would mistake it for honey. The slippery elm will cause it to ferment in warm weather (see Dr. Chase's book.) We have given the recipe to all our readers, and Mr. F. has good grounds for seeking legal redress if the law allows any in such enses.

We presente that courtesy and custom would dictate that a pleasant mention be made of the Oct. No. of the National Bee Journal just at hand, with Mrs. Tupper's name appended as Editor and Publisher; yet the whole appearance of the number is so unlike her work, and so little to her credit, that we forbear any criticism for the present, farther than that the number of typographical errors in many places seriously interferes with a proper understanding of the subject. Mrs. T. has not yet "got hold of the reins," we presume.

#### HONEY COLUMN.

- JEFFERSON, Wis., Oct. 18, 1873. R. A. I. ROOT :— Dear Sir:—Bee keeping has added over \$22,000.00, during the last five years, to my earthly posessions; my income is such that I would have no need to keep bees for the sake of making a living. But I am satisfied that I could not live a contented life without the keeping of a large number of colonics of bees, and therefore will keep them until I really get tired of them. Well, I have been in Chicago to sell my own and some honey I had bought of my neighbors. I called on C. O. Perrine, who had written to Mr. Fuerbringer that he was prepared to pay cash for all the honey he could get; and when I asked him if he could pay me the cash, if I con-cluded to sell to him he replied that he could pay no cash under 60 days, but would pay me 12 per cent. interest. He had formerly, once invited me with my honey to Chicago, under the same pretense, and I was forced to take his notes for thirty and sixty days, or remove the honey again after I had delivered it. I call this a mean trick. There is nothing that can make a bee keeper feel better than the clean cash for his surplus honey crop at the end of the season, [Have we a reader who don't intensely feel the truth of this remark.—En ], and to be forced to take notes of a very doubtful value creates quite un unpleasant feeling. After enquiry I found that great solitaire honey house of C. O. P. had lost its chief pillar. His former wife and almost exclusived manager of the house in Chicago for two years time (C. O. P., carrying on a honey house in Philadelphia,) separated from him last winter. After more careful inquiry I learned that C. O. P. only keeps above water by paying up old debts and making new ones. I think it is my duty to the American bee keepers to communicate this to you, as I had recommended C. O. P. as a honey house to which a large amount of honey could be sold at one lick. It is true after a forced drawing off of over \$50, I got all my puy out of him, but other parties have not succeeded so well. I will only add that I sold my honey to some parties who are about to open a honey house under the firm name of the Chicago Honey Com-pany, 360 Wabash Avenue, Chicago, and got a very satisfactory price and the cash for it. It will be carried on by the former Mrs. C. O. Perrine as principal manager, the little honey woman to whom I entrusted, after the great Chicago fire, my large honey crop of two years ago, coming to over \$1,000, and who paid me promptly as agreed antil C. O. P. came back to Chiengo and then pay was com-ing very slow. And now Mr. Editor if you consider this of any value to your readers, I give you leave to insert it in your columns. Very respectfully, ADAM GRIMM.

## PROBLEM NO. 15 VERSUS CIDER MILLS,

THEN our bees were removed to the swamp, the Quinby hive, the one containing our choicest queen, and four weak stocks, were left at home, and to keep these from the cider mill a quantity of dry sugar was spread out in the sun for them.

They very soon commenced on it lively, and finally, on the second day, became so vehement about it that we feared they would get to robbing each other; but on the third day were delighted to observe that they were working almost as peaceably as they did in the spring on their rations of rye and oatmeal, apparently having decided that it was common plunder, enough for all, and that there was no need of quarrelling over it.

After this there was no trouble, and when our whole fifty-seven were again safely on their own stands (Novice hardly slept nights during the whole week they were gone, and the "awful stillness" of the deserted apiary during the day decided him to turn Problem 17 over to those who have not so strong an attachment for home and its sucroundings,) it was with some trepidation that a half barrel of sugar was temptingly spread out with a view of satisfying the hosts of winged thieves, whose passion for sweets had seemed sariable with nothing short of a whole eider mill. And right here comes a note to show that we have at least one friend far away who sympathzies with us fully:

Ontario, Canada

MR. Navice:—You know what it is to wait for the "ambrosial" receipt, and yet you don't mind keeping your readers in suspense about "bees are working quietly on a half barrel of sugar."

ENGUIRER.

Thank you, "Enquirer." You give us courage to enter into details without fear that the subject may interest others less than it did us. Well, as in the first exper-iment, we soon had a "Imbbub." The oces that found the plunder first, coming home laden, put their companions in a frenzy, and in their eager haste took wing before they received directions (if they ever do, which we are inclined to doubt,) and all the premises were visited-bee house, kitchen, cistern, pump-all the bives in turn, until we began to almost wish we had not tried such an experiment; but finally most of them settled down at the right spot, and labored "with a will," as Mrs. Tupper has it, at the dry sugar, as reported just as we were going to press last month. Very soon it was evident, from the number around the pump, that water was in demand, and Novice soon took up the idea that with water in abundance they would fill up for winter their own selves. Brilliant idea! Tenkettles finally superseded. A watering pot

was procured, and the sugar dampened, until where hundreds of bees had been working before, we had thousands, and the voyaging around the neighborhood in quest of the mine of sweets by bees which hadn't found it, became alarming. Clusters of bees were seen tumbling over each other on the sidewalks, several squares distant, and everybody was inquiring what so many bees were doing everywhere and into everything; but Novice persevered, and dampened the sugar anew, until all did really seem working into the hum of honest industry. But a new trouble presented itself. Such a temptation was too much for "bee sense" in October, and the vagabonds wouldn't stop when it was dark, nor when 'twas rainy and cold, and after seeing them gorge themselves at such unreasonable times that they were unable to get home, the sprinkling part was omitted, and they now work on dry sugar when 'to pleasant as quietly and happily as one could wish

as quietly and happily as one could wish.
This is really an important point, for although the amount stored is small, it gives at all times a steady increase of stores, and prevents the possibility of any colony starving, however weak they may be. Our nuclei for rearing queens began to improve at once, and although drones were mostly gone before the experiment, our queens most of them became fertile, and we filled many orders for dollar queens on which we had concluded to return the money. We have also induced them to work on meal to some extent, when placed near their sugar, but not briskly. This is the more desirable, as we have a number of colonies so weak that brood-rearing is almost our only hope of saving them. In fact, we have just discovered two colonies so reduced that the queen has eeased laying entirely, and no brood in any stage is to be seen; and this state of affairs ocenrs Oct. 14. Without some of Hosmer's skill, we shall assuredly fail in wintering them.

As they had a fair number of bees a month ago, we can only attribute the loss to the cider mill, for thousands of bees were unavoidably worked in with the pomace.

It is principally when making sweet cider that they seem most demented in pursuit of the spoils. In conclusion, we most earnestly urge that bee keepers and owners of cider mills arrange troubles of this kind in a friendly and neighborly way, for quarrels in such matters only result in increasing the annoyance on both sides.

In removing the honcy preparatory to winter feeding, we found it to possess a decidedly apple tlavor, something like apple preserves, and as our cider mill neighbor refused compensation, we sent him a couple of jars of the aforesaid honcy.

WE have retailed hundreds of lbs. of extracted honey this season at 20c., while extra nice comb honey by its side waits a purchaser at 30c.

#### ANSWER TO PROBLEM 10.

OR each hive you will need two pieces of rather heavy galvanized iron 21x3 inches. Three holes are to be drilled in each of these, one in the middle and one near each end. It is somewhat difficult to make it clear on paper, how these are to be used, but we will try. In the simplicity hive, it will be remembered, a strip goes across under each end of the cover, and two four-penny nails are used to nail this strip into the end of the longer strips. Now instead of the four-penny nails, use sixes, and drive them through two of the holes mentioned in our hinge pieces, this will leave the strip of metal projecting (containing the third hole) down over the body of the hive; and it is plain that if we drive a strong nail through this hole into the hive, the cover hinged quite substant we have the cover hinged quite substantially. To make it removable 'tis only necessary to make the last mentioned hole in the strip with an opening in one side in such a way that when the cover is raised perpendicularly it can readily be lifted off. A cover with the strips attached forms a gauge by which to drive the two nails on which it turns, and if the cover and hinge strips are alike, any cover will fit any hive. Still farther by driving two nails in the same way at the bottom edge of the hive, the cover can be readily attached to the bottom for wintering, which see in first article. By using a metal hook on the cover and one nail for it to hook over, on both upper and lower edge of the hive we can fasten the cover in a trice to either the bottom or top of the hive. In making the device we were agreeably surprised to find that the cover when raised up would stand alone, which it will not with common hinges. We can furnish the hinges or hooks for one cent each if desired. To work nicely the opening in the strip of metal should be of an inch from the lower end and should he deep enough to just reach the center of the strip, the strip being nailed flush with the stick to which it is attached both top and side.

Novice says he has made this matter a study at odd times for over a year and that before he had reduced it, to its present state of cheapness, efficiency and simplicity, it cost him, he really believes, as much brain work as did the Ambrosial

Honey Mr. Herman Flick.

Any kind of a pair of hinges requires at least eight screws. Novice's "great in-

vention" requires none.

P. S.—Since writing the above Novice has so far improved it as to be able to present a hive having no external indications of a hinge whatever, and yet the cover is hinged very firmly and lifts off when straight up as before. It differs from the above in no respect only that the strips of galvanized sheet iron forming the hinge are nailed between the strips that go around the cover instead of on the outside; and before nailing the hive, one

of the side boards is sawed slightly shorter on each of the four corners, in such a way that space is left just sufficient for the metal ears to evowd in. Now drive a nail just right, down through the opening in the ear or hinge, and if your work is accurate, the cover works just beautifully, without a screw or nail more than is used in putting the hive together ordinarily. Novice keeps opening and shutting the hive every hour or two, and then looks for somebody's hat to sail in token of victory of—of, hard and persevering study over lumber and metals.

#### MEADS OF GRAIN FROM DIFFER-ENT FIELDS.

O. 105.—I have a strong nucleus. How, or can I keep it over safely?
M. B. Davis, Petersburg, Mich.

It is possible to winter even a small nucleus hive, as many experiments have proved; but it is very difficult unless a warm, frost-proof cellar be at hand, and even then the greatest trouble comes in March and April, when it is important they should begin rearing brood. Weak colonies, as a general thing, may be wintered easily in a proper repository; but the trying time comes when they commence flying in the spring in search of food.

No. 107.—Would you advise or approve the introduction of artificial heat, of steam, or of a stove from an adjoining room into the bee-room in severe weather, when it can be done without disturbing the bees?

18. ALOYSUIS.

B. Aloysus, Corporation of New Milleroy, Iowa. We would not advise artificial heat. least until we had good evidence of its utility. 'Twould be very difficult to prevent some stocks from getting too warm, and we think, with such a house as we have advised, there would rarely be need of it, more especially if the room contained 40 or 50 colonies. It might be beneficial to weak colonies or nuclei, should any be so unfortunate (as we are now) as to have such, and a correspond-ent writes that our "lamp nursery," deseribed last month, was just the idea he had been after, to moderate the temperature of his bee house in the most severe weather. We may make some such experiments ourselves during the coming win-

A strong colony can be wintered without a queen, but we are not sure that it pays.

The bees that were fed the "gallon of sweet eider" looked decidedly like the "bee cholera" during a cold "snap" of three or four days.

HERE we are again "all full," having used only two of the "Heads of Grain" out of nearly a whole field of valuable ones all rendy for the printers. Novice says "taint his fault," for we must either make our Journal larger or get our friends to manifest less interest in his work of hive making, feeding, etc.



Or how to Realize the Most Money with the Smallest Expenditure of Capital and Labor in the Care of Bees, Rationally Considered.

#### PUBLISHED MONTHLY.

Vol. I.

MEDINA, O., DEC. 1, 1873.

No. 12.

#### STARTING AN APIARY.

No. 12.

posed to give an article with the nbove heading for each month in this year, we are now near the completion of our task; and, before commencing in another year's volume

HOW TO CONDUCT AN APIARY,

we feel like pausing with a feeling somewhat akin to that experienced by a young man or woman when first settling down by themselves, as "children no longer." We presume you are all "started," after some sort of a fashion, at least, and, perhaps, some are depending on us to some extent to tell them what to do next.

extent to tell them what to do next.

We have tried to impress upon you the importance of having all work with bees done up in its proper season, yet we are pained to receive quite a number of letters from those who had not fed their bees as late as November. While this is had and may result in heavy losses, there is

still a chance.

A neighbor of ours came to us in December, a few years ago, and asked if his bees could be saved, stating that some boys had turned the hive over and robbed it of all the honey und nearly all the comb. As it was a box hive the bees had clustered on the stumps of comb remnin-ing in the top, and he could not think of letting them starve. We told him the case was nearly hopeless, but as he was determined to try feeding them, we directed him to nail a fine fanning mill seive over the hive to keep them in, and to place them in the cellar, the hive inverted, and to feed them on sugar syrup sprinkled through the sieve on the cluster until spring. This he did and they came through strong enough to build new comb in the spring and swarm beside. Since then we have heard of other instances on a larger scale, when winter feeding turned out badly. Perhaps the secret is to feed only so fast as they consume it, and then we run a risk of starving them unless fed daily.

We have another instance of a swarm being wintered without a partiele of comb, the amount of honey they required being

given them daily.

Although the editor of the Bee Keepers' Magazine replied to correspondents most positively that bees could not be wintered without comb, we have sometimes thought it might be the safest way, could they have their food furnished them promptly without trouble. A "log house" made of sticks of candy might do, and if any nmong our readers try it we hope they will report. In this locality we usually put our bees indoors about November 20th. Many of our colonies are now quite weak, owing to their "cider diet," we think, and as these have not got their stores sealed up well, we anticipate some losses before spring. The colony that had the "gallon of cider" have no scaled stores and we should give them some from other hives were we not desirous of test-ing the matter still further. We are pretty well satisfied now that eider acts almost as a poison to bees when confined to the hive by cold or otherwise, and shall take prompt measures next season to keep our bees busy elsewhere during cider time.

See your bees often in winter as well as summer and try and know at all times their exact condition. Many of us have succeeded finely in wintering one or two hives at times when their prospects seemed very doubtful; can we not now, when we have our dozens, or hundreds, do the same thing over again if we give them attention in proportion.

With best wishes to all who have followed us thus far, whether they accompany us through the year of 1874, or not, and hoping our efforts to assist in "Starting an Apinry" have been productive of some good, we remain, as ever, hopeful and willing to labor for the rewards that

and willing to labor for the rewards that another year muy have in store for us.

NORTH AMERICAN BEE-KEEPERS' SOCIETY.—The next annual session of this society will be held at Louisville, Ky., commencing the first Wednesday in December and holding two or three days.

## IS IT WELL TO UNDERTAKE TO WINTER A QUEENLESS COLONY?

a few of our readers who have a few of our readers who have seriously asked themselves this question, and, without claiming we have done it ourselves, we will tell you what

we do know of the matter,

In our experience in queen rearing during the past summer and fall, a friend called on us, and in discussing the matter of having young queens attacked by their own bees, he suggested that this almost invariably occurred during an entire absence of eggs or broad in the hive; and that the bees worried the queen because she didn't lay eggs for them to take care of. Perhaps we may here remark that our experiments did not fully corroborate this theory, for we have had queens attacked when about ten or fifteen days old even with brood and eggs in the hive, but we think the unsealed brood helped to prevent it.

Well, we so far fell in with the idea that we determined to keep eggs or unsealed brood constantly in all of our queen rearing unclei, then numbering forty or fifty. Now in case the young queen be lost in any way, it was plain that a new one would be reared, from this brood or eggs, which made it quite desirable that all these eggs should be furnished by our choicest queen; and Novice proposed the Argo queen be kept furnishing eggs constantly, to be taken as soon as laid and distributed among the fifty nuclei, "just to keep them busy enough to be out of mischief."

"But you'll ruin our 'Argo' colony," protests "P. G."
O, no," says Noviec with animation,

for we will keep them supplied with brood from other hives, and a prolific queen like that one will lay two or three

thousand eggs daily, when necessary."
Accordingly the hive mentioned was deprived of all the eggs it contained and an empty worker comb interposed between two broad combs. After about 48 hours we almost invariably found this comb nicely filled with eggs. These combs when thus filled were cut into strips about 2x3 inches, and when put into the nuclei were to thoroughly cared for that almost every egg produced a bee. As each square inch produces about fifty, each slice adds to the population of one talians. In order to have the comb of eggs taken care of without fail it should be inserted in the center of the cluster of

Our combs will cut so as to give about sexteen such pieces, and in order to give one to each nucleus about once a week, our "Argo" queen was obliged to lay over 2 000 eggs daily, which she would do readily if sealed brood was constantly kept on each side of the comb in which we wished the eggs deposited.

Would all those eggs have produced a like number of bees, had they remained in the hive? Most assuredly not, but where they do go to, we are not now pre-pared to determine. One thing is very certain, and that is that nearly every queen lays a much larger number of eggs, both in spring and fall, than can be used for brood, unless a great part of them be taken eare of by other queenless colonies, or colonies containing queens that don't lay

Perhaps our readers have remarked with what eagerness a colony, destitute of eggs or brood from any cause, will take to a comb containing eggs, and how surely each of these eggs will produce a

To get round to the point from which we started, then our course would be to winter a queenless colony, just as we do the rest, providing they contained sufficient bees. As soon as practicable in the spring we would insert a comb in the cluster of a strong colony, just long enough for the queen to deposit a few eggs in it, and give this to the destitute colony and about once a week repeat the operation, giving a few more eggs each time. Of course they will rear a queen which they may keep until nearly time for drones to appear, when she should be killed to induce them to rear a good one. The colony from which the eggs are taken suffers almost no loss at all compared with that sustained where combs containing sealed brood and larvae are taken; and likewise the queenless colony undertake to rear only so many of the eggs as they can conveniently take care of, whereas had sealed brood or larvae been given them they would many times have allowed the greater part of it to per-

It is our opinion from the experiments we have mentioned that one good queen could be made to furnish eggs thus, sufficient to not only keep up the population of one dozen colonies, but to slowly build them up. We should advise such a course only to those who think it a pleasure to work with and handle bees, admitting, of course, that by far the easier way is to have a good queen in every stock, but as queens are sometimes lost in November or the winter months, 'tis well to consider what is best to be done in such a case. Our readers can probably recall many instances of producing good strong colonies of those found queenless in the spring, when timely aid has been given. Getting eggs in the combs is a simple matter, but getting these eggs hatched into larvae by the thousands in one hive, at any desirable season of the year, is yet an unsolved problem. See Problem No. 12 and 13.

Wil expect to be able to furnish back numbers to all applicants, and the price for Vol. 1, will be the same as Vol. 11. Both will be sent, with photograph, for \$1.50.

#### BEE KEEPERS' CONVENTIONS.

MEE KEEPERS' CONVENTIONS where organized in your own immediate vicinity, without doubt, should be attended, and those large affairs, which we are expected to travel over whole States to reach, may be a good idea for those possessing ample means; but to the masses, those who keep bees as a source of income, and not for pastime merely, we should unhesitatingly recommend some other investment of the money, so far as money is concerned. How much real good have conventions accomplished? The National Convention at Cincinnati was well worth the investment to see Mr. Langstroth and hear him speak, but a vast amount of time was wasted in useless controversy scarcely pertaining to bee culture. At Cleveland we really cannot find that all the good accomplished, was sufficient to overbalance the injury done by the promulgation of erroneous theories; and at Indianapolis there seems to have been nothing left but patent hive men and theorists who had as little acquaintance with bees or bee culture, as the late N. Y. Farmers' Club had with farming, and still worse, no one seems to have discovered their mistakes in time to prevent their going out before the world through the Candor compels us to go so far as to state of the numerous reports of different conventions sent us, (for which we hereby tender our thanks), that we have found nothing contained in them sufficiently new or important to entitle it to a place in "Gleanings," unless we except the address of Mr. Quinby, alluded to in our March number. The expense of attending distant Conventions would generally much more than cover the cost of all the Bee Journals published—perhaps Langstroth's and Quinby's work besidesand we must think a careful perusal of these would be a more profitable investment of the money.

One of the health journals has an article on the adulteration of sugar. Now the only part of it that concerns us is the possibility that our A coffee sugar may be other than chemically pure, say ninetynine per cent. pure. We can conceive of no substance with which it could be adulterated, having the taste of sugar or no taste at all, having the appearance of sugar, and being at the same time perfectly soluble in water; and shall accordingly consider it safe bee food, for all times, places and under all circumstances. Some of these "Health Journals" in their

PERHAPS it may be as well to state that our article on Conventions was written and sent to the printers for last month's Journal, but was crowded ont. Mr. King's report of the Michigan Bee Keepers' Association, in some respects, would rather corroborate our opinion of their value. If there is no misprint about it, Pres. Bingham in bis address said:

And before he gets eight lines further, in the same strain, he eloquently sums up thus:

"And what has been the result? Simply this, that bee culture as an occupation, is a failure. This is no idle assumption. Statisties afford ample proof of this. Ninety, of every one hundred persons, who keep bees, have utterly failed. Nine out of the other ten, will no more than pay expenses, while the remaining one is more or less successful."

Mr. B. was certainly driving vehemently at some idea, and we should give it as above to our readers as Problem No. 19, were we not in doubt as to whether it relates to bee culture at all. If patent hive men have made our pursuit what it now is, and ninety-nine out of one hundred (bee keepers not "patent" men) "don't pay expenses," why —, but we give it up; our readers will have to "puzzle" it out for themselves.

The first subscriber on our books, for 1874, is Adam Grim, who has netted \$22,000 in five years. The next is R. Wilkin, Cadiz, Ohio, we dou't know how much he has realized from bees, but do know he has a pleasant way of paying cash down on some pretty large bills for queeus, etc. Now as we have no idea that our pages would contain the list of successful ones, we would respectfully solicit the names of all of our subscribers who have lost money in bee keeping during the last five years. Tell us all about it and we'll give you a department, and call it "Repository of Blasted Hopes." If it don't unfold some tales of "deeds to make and use," our name ain't — "Now, Mr. Novice, if you don't stop,

"Now, Mr. Novice, if you don't stop, there won't be any room for 'Hends of Grain' this month."

"Never mind we are soon to have our

## NOVICE'S Cleanings in Pee Gulture.

A. I. ROOT & CO.,

EDITORS AND PROPRIETORS.

## Published Monthly, at Medina, Ohio.

Terms: 75c. per Annum.

Any one sending us 5 Subscribers can retain 75c. for their trouble, and in the same proportion for a larger number.

[PRINTED AT MEDINA COUNTY GAZETTE OFFICE.]

Medina, Dec. 1, 1873.

IMAGINE Novice's consternation at finding the types in the A. B. J. carclessly allowed to make him say he had "more friends than be desired," when it should have read deserved!

AFTER the "cider" colony had dwindled down to less than a pint of bees and were evidently near their demise, they were handed over to the tender mercies of P. G., at her earnest solicitation, and they are now humming merrily under the combined effects of clean dry comb, candy, sugar syrup, and a warm room. We propose to follow their adventures, should they survive long enough to meet with

Should we offer chromos and the like as premiums, some might be induced to take our little Journal on that necount, and not for its own intrinsic merits. This we would not have, much as we would like to see its circulation increased, and when it can not still continue to make its way simply on account of its value to bee keepers, we will "bow and retire," still baving full confidence in the discriminative appreciation of our American people.

In our notice of the Bee Keepers' Journal in our Jan. No., we mentioned that it was to be hoped the "patent hive teature" might be removed, and we are now happy to state that such is the case. See advertisement. Chromo's are certainly less objectionable, when 'tis optional with the subscriber whether they have them or not, and as the National Agriculturist and Bee Journal is offered for \$1.00, withou any premium we consider it quite low, for so pretty a family paper.

OUR index to Vol. I, of "Gleanings," will be given in our Circular and Price List for 1874, which will be issued this month. It will be mailed to all subscribers as soon and util be sent to any one clse on application.

Nov. 21.—"P. G." insists that the bees should have been housed before this severe wintery weather, but Novice says there has been no suitable wenther for moving them, and that just as soon as the hives are dry again he will fix them all nicely.

Notwithstanding the finet that "Gleauings" will be considerably enlarged, besides being printed with new type, new press, and ou new paper, for 1874, we shall furnish it for only fifty cents, in clubs of ten or over. Any one sending us ten names at 75 ceuts cach can, of course, retain \$2.50 for their trouble, and allover 50c. each, for any additional number. Additions to clubs may be made at any time, and when the number reaches ten, we will credit the amount that has been sent us over 50c. cacb.

Should any be so unfortunate as to have bees destitute of ndequate food for winter when this reaches them, we should ndvise using plnin candy. Mr. Wilken, of Cadiz, O., has just paid us a visit, and among many vnlunble items given us, be mentioned that he had frequently saved colonies even in midwinter under eireumstnnees like the following: An old Quaker had two colonies in December that had stores iusufficient to last them a month, and had left them to their fate, as he couldn't "fuss to feed them." As Mr. W. was pressed for time, he proposed to save both, for one of them as payment in the spring, which proposition was readily accepted. We think a dollar's worth was purchased, the bives were inverted, and the sticks pushed between the combs, the two eolonies being placed in n cellar, of course. Our friend snw no more of them until the following summer, when be found both had swarmed and all were doing well. The owner gladly paid him for caudy and trouble, and went his way rejoicing. Mr. W. was unable to add that (so far as be had observed) candy stores were a preventive of the bee disease, nlthough his experiments have been only with such as had partially enough honey to winter.

Dr. Chase's Second Receipt Book is a considerable part of it devoted to bee keeping, and the author has been wise iu securing articles from only those who have been successful in the pursuit. We would suggest that Mrs. Tupper's prize essay, before being copied further, be thoroughly revised, by herself, up to the times, as it was written many years ago. Col. Hoit's article is for the most part quite safe and reliable, but his statement that "A swarm of bees put in a clean hive, will build their own comb and do much better, than a swarm put into a hive with the combs already built," is rather a grave error and one calculated to do much mischief. A new swarm will frequently gather ten pounds or more of honey the day after being hived, if they have combs in which they can store it, and the queen will also nearly fill a comb with eggs in the same time, giving them a great start in advance of those having no comb. We cannot see how a single experiment ever made, with two swarms coming out on the same day, could have given a result unfavorable to the hive furnished combs. As the Colonel used movable comb hives, we can't account for his want of experience in the matter. As Miss Katie Grimm's experience with the extractor is given in another place thero is a chance for the Dr's, readers to give modern bee keeping something like its just dues after all. We really believe the book contains nearly all the truly valuable receipts afloat. Price, ---. Address Dr. A. W. Chase, Ann Arbor, Mich.

In the Rural New Yorker, of Sept. 27th, Prof. C. V. Riley attempts to justity his course in advising retaliation as a remedy against bee keepers, whose bees are supposed to have injured neighbors fruits. He advises to plant the milkweed. that the bees may be ensuared thereby and the hives thus decimated to such an extent that they "give out," etc., etc. To say nothing of the folly of such a proceeding, which would almost parallel that of "removing the meeting house" because an offensive, deceased snake lay behind it, is it not strange that a man with Prof. written before his name, should imagino that neighborhood troubles of that kind, would be peacefully adjusted by such measures as poisoning each others bees by "fly poison" (cobalt and arsenie), and

that retaliation would not follow retaliation, until a case resulted that could only be settled by the law, and, as often happens, the States prison walls might closeabout one or both of the parties. We feel confident that the very persons Prof. Riley cites, would be reasonable and fair could they be brought to talk over the matter in a friendly manner. We bee keepers, Prof. R., are for the most part certainly an independent and reasonable people, and whenever our bees are annoying our neighbors we will make good the damages and take prompt measures to abate the trouble. Bees in our locality do not injure fruit, although many seem to think they do. The matter has already been discussed so much that we have no room for more of it here.

#### HUMBUGS AND SWINDLES PER-TAINING TO BEE CULTURE.

[We respectfully solicit the aid of our friends in conducting this department, and would consider it a favor to have them send us all circulars that have a deceptive appearance. The greatest care will be at all times maintained to prevent injustice being done any one.]

H. BOUGTON, Illiopolis, Ill., and Will R. King, Franklin, Ky., are complained of as having received money for queens and refusing to answer letters of inquiry relating thereto. In answer to our letters of inquiry, Mr. Boughton makes no reply, and as the Bee Keepers' Magazine has given him the position he has carned for himself, we drop him. Will R. King answers at length and we give the following extracts from his letter:

"In reply I would say that I sold a large number of queens in the spring and summer of 1872; very many of my orders I filled the fourth and fifth time, complaints coming that the queens died in the eagabefore being released, &c., &c. Some said that they arrived dead, others that they were so near dead that they died before being introduced, &c., &c. Several sent what purported to be statements of Post Masters and Express Agents, certifying that they were dead, or dying, or going to die, or did die, or might, could, or should have died, &c., &c. All such complaints were listened to attentively, and more and more queens were sent. I became suspicions that I was being played off on; and it turned out that some of these so-called certificates of P. M's. and express agents, purporting to be signed by the same parties, were in fact written in different hands, &c. I feel fully satisfied that I was swindled out of at least 200 nice, pure queens."

Mr. K. goes on with much more in the same style, says he never received any

money sent by mail nuless letters were registered, etc. Now can any one for an instant think so badly of our bee keeping friends as to believe that there are those among us who would send for queens the fourth or fifth time after they had received one in good order. Our experience has been quite the contrary. Not a dollar has been lost so far as we can learn out of over \$200 seut for queens. Our customers have been more patient and forbearing than we could expect, and in a few cases when queens were lost directly, by our own careless-ness, we really felt ashamed of ourselves on receipt of kind and courteous letters informing us of the mishaps, without implying in the least that we were expected to make good, losses occasioned by our blunders. It has been our impression for the last year, from the tone of letters received, that our people have been so abused, humbugged and imposed upon, that when they do send money by mail, they hardly expect to be treated as a fellow-being. The evidence against Mr. K. (see A. B. J. for Oct., page —) is at present much stronger than any that he can bring against our friends who read the Bee Journals.

#### HONEY COLUMN.

HAVE 300 or 400 lbs, of nice Basswood honey that I will deliver at the depot for 18c, and 100 lbs. of dark honey for 16c. Henry Palmer, Hart, Mich.

Machine extracted honey has sold with me first-rate so far. I have sold since July between 7000 and 8000 lbs. With the exception of about two bbls. it was all put up in 1 and 2 lb. jars and in 1 lb. jelly fumblers. Of the latter only a small quantity, of course. I have a first-rate retail trade for machine extracted honey and I am sure that in a short time the extracted honey will be the only honey called for. In a show window I have an assortment of different jars of honey all put up at the same time and from the same lot, hence the same honey: some of the honey has crystalized perfectly white. other jars next to those crystalized ones, or above or below them, are perfectly clear yet. What is the reason for this difference. Remember the jars being closed in the same manner, keeps them alike air-tight, of course. I wish to answer that question as a firm asket. answer that question so often asked, "Why does that far of honey candy and the one next to it does not," a little more satisfactorily than with my present "dou't know." I don't remember of having seen the question of crystalization discussed in a Bec Journal, and it will interest all to let the knowing ones come out on that topic. C. H. Murn, Cincinnati, O.

We at one time found the candying process a great drawback to the salo of

'Tis true it is some trouble hest honey. to get it ont of barrels when in the solid state, but we manage to get our barrels into the cellar of our store, near the hot air furnace, before frosty nights, where it never gets colder than about 50°. We fill jars from these barrels with facility by means of a molasses gate, filling several dozen at a time, as they may be needed. These jars of honey candy, of course, as soon as they are exposed to a temperature of 30 or 40°; but this we care little about for we can at any time restore it to its original appearance and flavor by melting it. The most convenient way of doing this in our own family, we have found, is to place the jar for several hours on the reservoir of our Stewart stove, or if some honey be wanted in a hurry, the cap and rubber is removed from the jar which is then placed in the back oven; should the honey be too thin and need "ripening" it. can be brought to any desired consistency by continuing the process, and we must confess to a weakness for clover honey so thick that it requires to be handled with a knife in very cold weather. Our children make a very beautiful candy of honey in the same way, working it as they do molasses candy. As we can not give Mr. Muth a single idea as to why one jar of honey candies sooner than another, we'll

I have about 400 pounds basswood honey. extracted and in good order, all stored in jars from 10 to 50 pounds. I should be very glad to sell it at 18 cents net eash. My honey is thick and I do not see how anyone can have better.

Joseph Duffeller, Wequiock, Wis.

#### LUCK IN BEE REEPING.

ow, sir, I want to tell you there is such a thing as luck in keeping bees: they may be managed ever so well and then bad luck comes in. I will tell you how it happened. I had some of my best Italian stocks close to my house and treated as you gave in "tileanings" for winter. The very best stock was stole right from under my window, last Sunday night. I felt as bad about it as I should if it had been one of my horses. Now, Mr. N. if your tea-kettle feeder is not patented I wish you would tell us how, and with what, you keep the syrup from running too fast for tho bees to take away.

M. RICHARDSON,
Port Colborne, Canada.

We are really sorry for our friend and

We are really sorry for our friend and can offer no remedy unless it be to make the high board fence around the Apiary, thief proof as well as wind proof. twere possible to tell who were the unprincipled depredators could not they be told kindly that we would give them the honey twice over rather than have them destroy our choice Italians. We feel sure their better feelings might be appealed to. Our friend has not tried the tea-kettle feeder we think. Atmospheric pressure keeps them from leaking, on the same principle that a small mouthed vial will

## HEADS OF GRAIN FROM DIFFER-ENT FIELDS.

what is the exact temperature you would constantly maintain, if possible? The temperature of the general atmosphere ontside of the hives, I mean, with the tons off. Hosmer lays stress on having all nader rentilation closed. He lays so much stress upon this, that one might hastily conclude that a perfectly tight-fitting jbotton is what he advocates—what he uses successfully. My knowledge of physiology and chemistry teaches me that in every instance, a perfectly tight hive—an air fight hive—would fill up with the carbonic acid gas, from the breath of the bees.

St. Johns, Mich.
Our correspondent uced be under no

Our correspondent uced be under no apprehensions that Mr. Hosmer's hives will fill up with carbonic acid, for, as they are of the "American persuasion," there there will be ample room for all gases to crawl ant or in through the innumerable erevices, even when closed as best they can be, Our bees are usually quitest at about 40°.

Our bees are usually quitest at about 40°, No. 109.—How shall I free combs from old potten? Will the bees do it themselves? How to separate the old bees from the young so as to have nearly all young bees in the hive at the beginning of winter. All my hives are two story and both stories are now filled with bees. The lower story will not afford sulficient room for all the bees and 46 sheets of romb. The upper story, of course, I shall remove as soon as honey ceases.

J. H. Wilson Lexington, Texas. September 1st, 1873.

Novice says your large amount of pollen is the secret of the large number of bees, and that you should save both by all means. Give the upper story a queen and plenty of stores and they will do as well as the other. Our bees always use their pollen in spring, besides usually large amounts of flour or meal. This is one of the cases in which it is desirable that both upper and lower story should constitute a complete hive when need be, a la simplicity.

No. 110.—11 hives are kept shaded from the sun, are combs apt to break down in frames II inches deep by 172 wide? (from from to rear).

J. Bengardner, Jr', Kimbolton, O.
Although there would be other objec-

tions to a frame so deep, (see Prob. No. 1 and Heads of Grain No. 22), we should have no fear of combs breaking down from the cause mentioned. We have never had combs melt down but on one occasion, and then the hive was an American painted dark brown, nearly black, and was without shade. After painting the same hive white, we had no brouble, although left in the same situation.

No. 141.—I wish to know where silver hulled buckwheat can be got on fair terms this fall, for seed next season. Bees almost all died in this section last winter. I only sured one stand out of forty. Bought a few in the spring and, having plenty of comb, have increased to 32 stands. Hope to have better success wintering this time.

JONATHAN SAUTH, Willow Branch, Ind.
Will some one tell us whether the silver build in any letting than the gamman for

halled is any better than the common for We have an impression of having beard that its value has been over estimated. We have now only one word of advice to those having lost bees wintering: 8-U-G-A B.

No. 112.—Friend Novico:—What does it mean, a queen that does not lay an egg; there is neither brood nor eggs in the hive.

M. KAPP, Poo. 0., Sept. 12th.

It probably means they are short of stores. Give them at once enough syrup to make them feel good, i. e. fill up their combs nicely and if her majesty don't straight-way make a whole comb "sparkle" with eggs it is because she is bad. The former is most generally the trouble, however, at this season,

No. 113.—I think I could help you on the pollen question, if wo lived near each other, by swapping combs, as I have a superabundance of it. Perhaps if you would raise an aore of hemp every yoar, your bees would gather enough pollou in the fall to supply their wants the uext spring. I have heard that if bees are fed syrup on brown (rye and Indian) bread crusts they will eat all the soft part of the bread. Perhaps that might be fed in dull weather as a substitute for pollen.

S. ROWELL. Farihault. Minn S. Rowell, Faribault, Minn.

Many thanks Mr. R. We shall certainly try the hemp next season, and we have made experiments, without success, similar to the last. Has any one else ever known hees to use brown bread as a substitute for pollen. We should like to send the \$5.00 to some one.

The \$5.00 to some one.

No. 114.—Friend "Novice":—The pins, to designate the condition of the stocks to which the queen-rearing cards are attached, as suggested in the last number of "Gloanings" answer a very good purpose, so far as two of the centers are concerned. But for the center of the circle of figures, I prefer a timed tack and two small pieces of zine, or brass, one of them a trille longer than the other, and arranged like the hands of a clock. Let the shortest one indicate the year and the longest the day of the month a queen was approved. For instance, supposing a queen was reared during the season of '72, then let the shortest index point to the figure 2, if during '73, let it point to the ligure 3, and so on. In that way the cards, as now printed, can be made to indicate the age of the queen until the year 1901, and by that time some one way study up something better, and perhaps, have it putented. Asmes Bouls, West Lodi, O.

We had thought of your device but considered it rather expensive, and feared

considered it rather expensive, and feared 'twould get "out of kilter." We would suggest that one of the bent pins be put anywhere in the hive to designate the year. Imagination can suppose figures around it like a clock dial, and we keep record thus: Straight nr, of course in-dicates 12, and shanting slightly to the right, 1; horizontally to the right would mean 3, and a little above horizontal, 2; while below horizontal a little, would be I, and so on. The four positions up, down, right and left, being plain at a glance, a slight inclination from any one of these positions would indicate the remaining eight numbers, with little danger of mistaking, especially after some practice. This is an important item, for such records might be used to indicate numbers for a variety of purposes, for instance: our friend Shaw desires to indicate the hive from which be takes brood to rear queeus; as his opinry consists of over 100 colonies, two pins might be used side by side, and reading the numbers designated as we read figures, we would have 33 by turning both to the right, 99 by turning both to the left; 63 by turning

the first straight down and the second to the right, and so on. On the first, the positions 11 and 12 would not be used, unless we chose to go over 100, and perhaps 10 should always be read as naught. We hardly need add that the practice of marking hives up with a pencil is untidy, and besides a pencil is not always at hand.

and besides a pencil is not always at hand.
No. 115.—I put into winter quarters last
Nov. 108 good colonics of bees in good cendition and cameout with 24 pretty good colonies
and 22 in a weak condition. The 24 gave is
500 lbs. of honey, nearly all out of the
comb, and increased them to 32. A little
after the middle of the honey harvest we
smothered 2 of the best ones and got no inerease from them. I have now 70 colonies
and 4000 lbs. of honey in all, of the best
quality we ever had; we have sold about 25 (b)
lbs. of it at an average of about 24 cents por
round. My bee house is a second story, with
taw dust walls 14 inches thick and well ventilated. I think bad honey was the cause of
our loss.

P. W. MOFATRICE,
Carthage, Ind.

We are obliged to our correspondent

We are obliged to our correspondent for two reasons. First hecause he really has done exceedingly well, and secondly because Mitchell, in his Directory, gives an account of what agrees in name, state and many particulars with the above; yet he states the result was obtained from eight stocks instead of forty-six. Quite a difference Mr. M., yet we don't know but 'twere wrong to expect truth from you at all.

No. 116.—I think you are a little too strong on your syrup theory for winter food, and if my bees winter as well this year as they did the last two years, I shall most certainly convert you to my straw mnt arrangement. I don't feed at all, except in particular cases of course; and oven the stimulating in spring, outside of rye flour, I have never done with satisfaction. The uncapping of a comb occasionally snits me much better.

C. F. MUTH, Cincinnati, O.

Snpposing syrup no better winter food than honey (we think all agree that 'tis just as good,) the great saving, owing to the difference in price, would always, we think, lead prudent hee keepers to use the We are already converted to Mr. sugar. M.'s straw mats as a means of keeping the bees dry and warm, and they may serve a hetter purpose than the cloth quilt, but we have always considered them about their equivalent. We have an impression that straw mats are untidy and are always scattering straws about. Is it not so? The colony mentioned under Heads of Grain No. 69, that we wintered on less than 1 lb. of food per month, was packed all over with fine swamp hay and kept in the cellar right beside our cider As we expected them to be out barrel. of food before New Year's, we tapped daily on the hive (?) to see if they responded, and to our astonishment, they did this promptly until the last of March. and then when set out had nearly all of their one comb of sealed honey, given them in November. There was less than a quart of hees in the fall, and few if any more in the spring, but they huilt up eventually to a fine colony. We attempt ed to winter our whole apiary of 40 colonies, the winter after, in the same way, only we didn't use the hat. We lost all but 11 with the bee cholera. We have many times since wondered whether the hay possessed some rare virtue, or if the "tnpping" may not have bad some talismanic effect. If we remember aright, not a dozen dead bees were found on the bottom board, but after their first flight so many bees were missing we feared the few remaining young bees would never get strong, but they did. We think the diverse reports in regard to spring feeding come about because the condition of the colonies differ; with one containing "lots of pollen," lavish feeding produces bosts of young bees; but where pollen is wanting, feeding with honey or syrnp does little good. Rye meal, or anything they will take in lieu of pollen, aiways gives abundance of brood. Are we right?

We "extract" the following from the Chicago Honey Co.'s circular. If they are not entirely in the right they are "most:"

"The honey thus extracted possesses a most delicious flavor, and can be eaten without fear of sickness. It is eating the Comb that makes one sick, the Bees nover eat it, and phycians say there would be as much propriety in drinking ale from a bottle, and then eating the bottle, as to eat the Houey and Comb also."

#### ADVERTISEMENTS.

Advertisements will be received at 10 cents per line cach insertion, cash in advance; and we require that overy Advertiser satisfies us of his responsibility and intention to do all that he agrees, and that his goods are really worth the priceasked for them.

A MEHICAN BEE JOURNAL.—Established by the late Sam'l Wagner, at Washington, D. C. Now published at Chicago. W. F. Clarke, Editor and Proprietor. Subscription price, \$2 a year in advance. Sample numbers sent on application.

DEE-KEEPERS, ATTENTION: -Send D 25 ets. for three months' subscription to National Bec Journal, now published and edited by

ed by FILLENS, TUPPER, Des Moines, Iowa. Liberal terms to Agents. Specimen number free:

A DAIR'S ANNALS OF BEE CULture.—The fourth volume will be issued in 4 quarterly parts, each the size of former volumes. At 50c. onch. \$2 per Vol. The first will be out about the first of December, 1873. Prospectos and Club Terms reut on application. Back Volumes, except the first, can be still furnished at 50 cents each, in paper, D. L. ADAIR, llawesville, Ky.

DOTRY IT 3 Months for 10 Cents; months with "The Plowers of Paradise," a first-class \$6 Chromo, 15½ x 21 inches for \$1. The National Agriculturist and Bee Journal is a sixteen page paper of 64 columns. handsomely illustrated in all its departments. One of the hest Agricultural and Family papers published. Only \$1 per year, or \$1.25 with hest Bee-Rook, or \$1.50 with a boautiful Chromo. Boo-Keeper's Magazine, a 32-page monthly, same terms, or both for \$1.75. Send now for samples, and Liberal Terms to Agents free, H. A. KING & CO., 14 Murray \$1. X. Y.

## BEES AND HONEY

## CIRCULAR 1874.

WHICH, TO BE FRANK, IS PRINCIPALLY AN ENUMERATION OF

## WHAT WE HAVE TO SELL!

Besides Being a Condensed View of Bee Culture for 1873,

With what we hope is a Clear, Candid, "Square," (i. c. not one-sided) view of the Question:

## DOES BEE-KEEPING PAY AS AN OCCUPATION?

Sixth Edition.

MEDINA, O., DEC. 17, 1873.

A. I. Root & Co.

### Introductory.

We trust the above heading will introduce us sufficiently to such of our readers as we meet for the first time, but for fear it should not prevent them from getting an idea that this is only a new dodge to beguile their attention while we slowly and cautiously unfold marveious reports of astounding yields of some "patent live" or "useiess trap," we will state: First, that every article named in our list, with perhaps a single exception, can be made by the bee-keeper himself at home, and so you have only to consider which you have the nost of to spare, time, or money. Secondly, we furnish the most explicit directions for enabling you to make your own implements, or anything we offer for sale, and you have only to decide, by the price, whether you can best afford to purchase of us, or to use home-made implements.

plements. Now lest some decide that we are "too elever", we heg to submit that this valuable knowledge we furnish in our Mouthly

"GLEANINGS IN BEE CULTURE,"

for which we ask the modest sum of 75 Cents Per Year, or 50 cents in Cinbs.

### 1873 as a Honey Season.

Notwithstanding that we have many times experienced a dislike to hearing a senson called the worst that was ever known, we really must be excussed for that was ever known, we really must be excussed for stating that the Summer of 1873 has been the poorest tor honey we have ever known.

Fruil blossoms did fairly, but when White Clover had been yielding harely ten days a "dry spell" set in, and that was the last of inoney for the senson. Basswood hardly give us a flavor of it, and other sources perhaps furnished the bees nearly what they consumed. As a general thing no swarms issued in this yelenity at all, and we fear our box-hive friends will lose their bees by starvation generally.

Now it gives us pleasure to add that we think we can show that bees may be made to pay even in such sensons, and that only ten days of a yield of White Clover honey should pay for all trouble and expense the rest of the year.

rest of the year.

During the ten days mentioned we secured, from 56 colonies, one ton of nice Clover honey, which has been nearly all sold at an average, say of 17c., making \$\frac{8}{2}\teas.\$\text{Months}\$ one ton of nice Clover honey, which has been nearly all sold at an average, say of 17c., making \$\frac{8}{2}\teas.\$\text{Months}\$ one ton \$\frac{8}{2}\text{Months}\$ of \$17c., making \$\frac{8}{2}\text{Months}\$ of \$17c., making \$\frac{8}{2}\text{Months}\$ of about \$\frac{8}{2}\text{Months}\$ of \$17c., making \$\frac{8}{2}\text{Months}\$ of about \$\frac{8}{2}\text{Months}\$ of \$17c., an accepted for Queeus rearred in the upper stories after the honey yield was over all outlays account of labor. We have not been in the habit of making any account of labor, unless it be during the honey season, (which was of less than ten days duration the past summer.) as the earce of our bees is usually only a pleasant recreation from our regular fustness, and as our Bees, Bee Honse, and implements generally, have been involved at about \$\frac{8}{2}\text{Oool,000}\$, we must conclude that 30 per cent. a very fair profit on the original investment, even if It has been the "worst of seasons." It is no more than fair to stale that nearly all of our yield was from about 40 of the strongest, and that in our opfinlon, 25 really good stocks, say equal to a half dozen of our best, would have produced, more than our whole 56.

The honey crop has been reported mostly poor throughout the U. S., yet some localities report it good, and a few, that rate, and even in our own county a few points have yielded quite well. During the ten days mentioned we secured, from 56

#### Implements for the Aplary.

Almost the first thing to be considered in commencing Bec-Keeping is Hives for our bees, and as the hive is determined by the sized frame we use, It seems that the frame is after all at the real foundation of a start in Bec-Keeping. We used hardly add now that whatever dimensions be decided on, no other should be used in the Aplary under any circumstances whatever. Make up your mind on commencing, the size and shape you prefer, with a decision that shall be a final one, for the want of uniformity between Aplaries is bad enough now, without having the same trouble exist in a single establishment, i. e., have every fromefit nicely in any hive.

Now those who have one kind of hive and frame already, perhaps had better not change, even if there are a hundred and one different kinds; but our friends who are making a start, it seems to us, can certainly decide upon one of the five kinds of frames now successfully in use, given below; we give them in order of their size, on a scale of one-sixteenth of their actual size, outside measure, the Quinby being the largest and the Gallup the smallest.



To avoid a semblance of Injustice we will say that the frames we consider Langstroth frames, every one of them, and we believe he experimented with them all, and many more hesides, before settling down on the Standard Langstroth; but custom seems to have found it convenient to designate them as we have, by the respect of those who see or prefer them thus. We the Standard Langstroth; but ension seems to have found it convenient to designate them as we have, by the names of those who use or prefer them thus. We keep only the Standard Langstroth on hand made up, as we think it best, all things considered. Were we to choose next we should select Adair, then American, then Quinby, and lastly Gallap. Were we to rear Queens largely we might ptefer the latter to all others on account of the small frame. We should use for any of these frames what we call the Simplicity hive, that is a plain box made without top or bottom, and to give them the requisite strength to keep square and true, we should "halve in" the corners that they may be nailed from both ways. As the Quinby, Adair and Gallap frames are of the same depth, one width of boards will answer for all, both sides and ends, and as eight frames fill a Quinby hive, the width is just right to take the Gallap frames crosswise, of which twelve are used; thus making the same hive answer for either, with the exception of making the rabbets in the ends for the former and in the sides for the latter. About ten frames of the Langstroth, Adair, or American, are needed for a single story hive, and so we may make them all of the same width, viz: 14½ inches. For facility in working we would always have the upper and lower stories precisely alike, and for the same version we would also have tons and bottoms exactly make them all of the same width, viz: 10% inches. For facility in working we would always have the apper and lower stories precisely alike, and for the same reason we would also have tops and bottoms exactly alike, and these should be made with strips around them like the cover to a trunk to effectually prevent warping; we use a simple hinge that hinges any one of them instantly on any hive, as may be required. For more precise directions for making these plain, simple hives, see GLEANINGS for 1873. "This optional whether common nailed frames be used in these hives, or those we make with metal corners, the latter are of course more expensive, but when the Apiarist's time is valuable we think they are a good investment, not only because they are never gummed first, but also on account of their superior lightness and strength, and as much less wood is used in their construction we have more square inches of comb surface for brood or honey in the same hive. As quite expensive machinery is used in the construction of the metal corners we have had them patented, but the right is free to every one to use them, we only reserve the right to manufacture, which we presume will never inconvenience Bee-Keepers, so long as we furnish them at the law price of one cent each, or less in large quantities.

Whatever form of Hive be used, soft, light, cloth quilts should always be used to cover the frames, and, indeed, with metal corners these are almost a necessity, for a honey-board would be liable to be stack to the frames sufficiently to raise them up when it is removed. These quilts, to work well, should fit accurately, and If they are soft and light they may be pressed down on the Bees when they cover the frames without injury.

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Before dismissing Hives we must not omit to add that any one of these five frames may have a hive made wide enough to contain the full number needed made wide enough to contain the full mumber needed in a single story, and Adair claims that a good Queen can use a live for his frame four feet long and containing, if we allow 1½ inches to each frame, about thirty-two frames; this we believe he styles the "New Idea Hive." While admitting some great advantages from this arrangement, such as not being obliged to lift off an upper story, being able at any thue to remove any comb at pleasure, facility in extracting, for we can shake the bees off the combs directly on those that have been emotted, etc.; yet we cannot agree we can shake the bees off the combs directly on those that have been emptled, etc.; yet we cannot agree that any greater amount of honey may be obtained by such an arrangement until we have more positive experiments in the matter; nor can we think the arrangment of spreading the combs horizontally sufficiently new or novel to be the basis of a Patent Hive. The disadvantages are that double the amount of bottom board and cover are needed to enclose the same multiper of combs, the hive is suread over more ground, is

board and cover are needed to enclose the same mun-ber of combs, the blve is spread over more ground, is not as compact, and if housed in winter the whole ar-rangement must be "lugged" in. All things consider-ed, we are not now prepared to decide that the form may not ultimately obtain, over the two-story blve. For box Honey we would use any of the hives men-tloned two-story, or we would make them double width and use two stories, thus enabling us to add boxes at the sides of the comb as well as on top. This arrangement is said to give enormous yields in some localities, but we have never been able to secure any such results here. If bees are furnished plenty of room near the brood combs during a yield of honey we presume it makes little difference whether it be at the side or above. We cannot think it possible for bees to We cannot think it possible for bees to

build the comb, and store, under any circumstances, the quantity of honey they would with empty comb furnished them. Where box honey is relied on, in most localities, disappointment has been so much the rule and success the exception, that 'its a very precisions business indeed. With the Extractor and a set of surplus empty combs, the Bee-Keeper is almost sure of a crop, be the season ever so poor.

#### Extractors.

It would seem there has been more thoughtlessness It would seem there has been more thoughtlessness in the construction of extractors, if possible, than in movable combs for hives, and nothing short of direct experiment seems to have any influence in convincing that revolving the can of the Extractor is a most intolerable error. To be brief: Have every part stationary that it is not absolutely necessary to revolve; in make the revolving frame just as light as it possibly can be and have the necessary strength, and in order to secure this lightness and avoid useless centrifugationer, all frames should go in the longest way up and down. The comb should stand when revolved, against a sheet of wire cloth firmly supported at about five down. The comb should stand when revolved, against a sheet of wire cloth firmly supported at about five inches from the center of shaft, and were the combs used the longest way horizontally we should be obligations of the continuous root from the continuous results against the partial of the continuous results against the continuous results. inches from the center of shaft, and were the combsused the longest way horizontally we should be obliged to use a very large can, and those portions most remote from the center would of course receive the highest speed, requiring a waste of labor, and endangering the throwing out of the unscaled brood before the honey was all out of the middle of the comb. Extractors should be made all of metal for obvious reasons, and the center and gearing should be supported by a single arm, that we may have nearly the whole top of the can open to handle frames rapidly. The whole apparatus should not exceed twenty pounds in weight, and should be sufficiently compact to be played over the lung-hole of a barrel, that we may work minterruptedly, without being obliged to stop to empty or strain honey in the height of the honey scason. Lastiy, every drop of honey should run out of its own accord, and a large sized molasses gate should be attached, that we may close it qulckly, when a barrel is full. Notwithstanding the advantage of laving an Extractor that will take any sized frame we have mentioned, we would have at least two sizes, for it would be too great a waste of time and strength for one possessing an Apiary of Langstroth hives, to work a machine with the superfluous metal necessary to contain a Quinby or American frama. A seventeen inch can will do very well for all trames having a dimension of 11s, inches or less, and we should use a twenty inch can for the Quinly and American trames. meusion of 113, inches or less, and we should use a twenty inche an for the Quinly and American tranes. 'Tis true that for the American, Gallup, or Adair Trames, we might have a shallower appayagus than for traines, we might have a shallower apparatus than for the others, yet as the expense is but little more in making, we have usually made them all of a depth of about 20 inches. For directions for making, see GLEANINGS for Feb. 1873. In regard to Transferring, Artificial Swarming, Rob-

blug, Wintering, etc., we have little to add in addition to our remarks in our last year's Circular, more espec-ially as each subject has been frequently treated in GLEANINGS.

We can ship promptly, by Freight, Express or Mall, (none mailable except those designated.) goods mentioned in the following list. Hives, Extractors, etc., can be sent much cheaper by freight, but in this case they should be ordered three or four weeks belore needed, if the distance is considerable. During the months of April, May and June, orders may sometimes be delayed several days, but our customers may rely upon receiving prompt notice at once on receipt of all repulsances. of all remitances.

At the prices given below, each must accompany every order; as the sending of goods C. O. D. entails an additional expense, and goods many times tail to an additional expense, and goods many times tail to be taken, we must be excused for refusing to send any that way. When hives or frames are ordered in quantities, the additional expense of boxing is such that we can make no better rates on large orders. Orders for frames or hives of dimensions different from those named, will also be liable to some additional delay, especially during the "Honey months."

#### PRICE LIST

The above farnishes a complete sample hive to work from, as the bottom is to be made precisely like the cover; two of them forms a Two-story hive, and the extra cover then furnishes a bottom board.

Figure of the above furnished domine with the research process of the state (wester) of the whole earth process of the control	4	
branks with, with bottom board as well as cover 2.50 Dranks with, with bottom board as well as cover 2.50 Dranks with, with the some number of frames as tested of above with the extended horse of th	Either of the above furnished double width1.5	0 Same, waxed and polyter
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multithey have fully tested those.  Nuclean hives, such as are mentioned under the licend of "Queengs," each, complete	might be made to give an extra yield of honey is all	Small selssors, very fine pointed, for ellming
Nucleus hives, such as are mentioned under the head of "Queens," each, complete	manner, but would advise no one to start many such	Photograph of Assumi
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Metal Cripbe width, for "New Idea,"	frames will be packed ready to be put together will,	ity, we dare not offer queens for sale, warranted present
Metal Corners put up in packages of 100 f. s. enough for 25 homes (by mail 26 cents extra	hives to contain them are to be sent made up, but the	most carefully solved at real from the brood of the
per 1,000.  Per 1,000.  Per 1,000.  Per 1,000.  Cast Iron Block for putting frames (20,000)  Cast Iron Block for putting frames together, ity mail Ice, extra.).  With every order for 100 frames or more, one of the above will be included without charge.  Rabbets for frames to rest on, made of foided styles for metal, per running food.  Rabbets for frames to rest on, made of foided styles for metal, per running food.  Rabbets for frames to rest on, made of foided styles for metal, per running food.  Rabbets for frames to rest on, made of foided styles for metal, per running food.  Styles for metal, per running food.  Rabbets for frames to rest on, made of foided styles for metal, per running food.  Styles for metal, per running food.  Rabbets for frames to rest on, made of foided styles for frames to rest on, made of foided styles for frames to rest on, made of foided styles for frames to rest on, made of foided styles for frames to rest on, made of foided styles for frames to rest on, made of foided styles for frames to rest on, made of foided styles for frames to rest on, made of foided styles for frames to rest on, made of foided styles for frames for frames to rest on, made of foided styles for frames for frame	Metal Corners put no by analysis.	Ior \$1.00 ander the can be in posted it possible,
rest iron Block for putiting frames together, by mail 10c, extra.).  With exery order for 100 frames or more, one of the Rivers for frames for rest on, made of folded surface. He will be included without charge.  Folding the strips sales greatly to the strength, because the strict of the strip sales greatly to the strength, because the strip sales greatly sales greatly to the strength, because greatly sales greatly sal	enough for 25 frames, (by mail 20 cents extra) 100	ders will 60 qual man incy negin to my, and or-
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Whenevery order for 100 frames or more, one of the above will be included without charge.  Rabbets for the three to rest on, made of foiled sells for the control of the strength of the control of the strength of the streng	Cast Iron Block for putting frames together the	guarantee of safe delivered thow, but we give no
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Rabbets for frames to rest on, made of folded strips of metal, per running fool	above will be included without charge	are shipped, but at the years lead when the queens
when our enstomers are tired of sucid delays as we here the braine to strike when repincing it, and prevents the bees gunning the projecting edge.  Quilts for any of the hives mentioned, thy mail see, extract.  Quilts for any of the hives mentioned, thy mail see, extract.  Quilts for any of the hives mentioned, thy mail see, extract.  The same double width, (for "New Idea,")	Billippers 101 Designed to your and a contract to the contract	penses must be made as light as possible. No order
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bees and all, with two frames 2s, 1983; for S.00.  The same double width, (for "New Idea,")	well as the supporting edge ends of the frames as	hope to be able when the season opens, to ship queens
bees and all, with two frames 2s, 1983; for S.00.  The same double width, (for "New Idea,")	Quills for any of the later.	We propose also furnishing Santon Lt.
(by mall loc, extract).  These are made to fit our frames or any other frames jai inch.  Novice's Honey Knife by mail.  Lot liar dozen, by express.  Lot liar dozen, by express.  We will add that our Honey Knives are sulliciently keen and sharp to uneap honey with facility, without resorting to water, either hot or cold. The handle is of Ebony, and the whole is very strong and flucly this ished.  Tea-Keille Rec-Feeders that will feed a colony under favorable circumstances 25 lbs., or sufficient for winter, in fan hours.  Extractors for any of the Frames mentioned.  These machines are all of metal, and as the bearings are all of tempered steel, they are very light and easy running.  The gearing has been receulty considerably inproved and every part is most especially arranged for rapid and every part is most especially arranged has been constantly and the whole insurance constantly and the substantial pottom and iron bound at the top, worth of a wariety of purposes, nearly what the whole machine is only about a substantial bottom and iron bound at the top, worth for a variety of purposes, nearly what the whole machine is only about the general proposes, nearly what the whole machine is only about the general proposes, nearly what the whole machine is only about the general proposes, nearly what the whole machine is only about the general proposes, nearly what the whole machine is only about the general proposes, nearly what the whole machine is only about the general proposes, nearly what the whole machine is only about the general proposes, nearly what the whole machine is only about the general proposes, nearly what the whole machine is only about the general proposes, nearly what the whole machine is only about the general proposes.  There has been so little domand for these that we have not kept then on hand.  Gearing for Extractor, including all castings to fish the down of t	The same double wide.	bees and all, with two frames 2% by 812, for \$3.00.
(by mall loc, extract).  These are made to fit our frames or any other frames jai inch.  Novice's Honey Knife by mail.  Lot liar dozen, by express.  Lot liar dozen, by express.  We will add that our Honey Knives are sulliciently keen and sharp to uneap honey with facility, without resorting to water, either hot or cold. The handle is of Ebony, and the whole is very strong and flucly this ished.  Tea-Keille Rec-Feeders that will feed a colony under favorable circumstances 25 lbs., or sufficient for winter, in fan hours.  Extractors for any of the Frames mentioned.  These machines are all of metal, and as the bearings are all of tempered steel, they are very light and easy running.  The gearing has been receulty considerably inproved and every part is most especially arranged for rapid and every part is most especially arranged has been constantly and the whole insurance constantly and the substantial pottom and iron bound at the top, worth of a wariety of purposes, nearly what the whole machine is only about a substantial bottom and iron bound at the top, worth for a variety of purposes, nearly what the whole machine is only about the general proposes, nearly what the whole machine is only about the general proposes, nearly what the whole machine is only about the general proposes, nearly what the whole machine is only about the general proposes, nearly what the whole machine is only about the general proposes, nearly what the whole machine is only about the general proposes, nearly what the whole machine is only about the general proposes, nearly what the whole machine is only about the general proposes, nearly what the whole machine is only about the general proposes, nearly what the whole machine is only about the general proposes.  There has been so little domand for these that we have not kept then on hand.  Gearing for Extractor, including all castings to fish the down of t	triple width, (for "New Iden.")	guarantee safe delivery; other conditions, and we
These are made to fit our frames or any other frames inst z <sub>i</sub> inch.  Novice's Honey Knife by mail	(by mall 10c, extra)	With the dollar on tane Was then I am and as
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	To enable our friends to economize time and money.
** Admicognine	we enclose an envelope addressed to ourselves. If
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11es. 72, 8	are under no necessity of writing us a letter unless you choose. Respectfully,  A. I. ROOVES: CO., Medina, O.

# "Gleanings in Bee Culture."

## DEVOTED EXCLUSIVELY TO BEES AND HONEY.

Vol. II.

JANUARY 1, 1874.

No. 1.

#### HOW TO CONDUCT AN APIARY.

FTER wishing our readers all both old and new, a "Happy New Year," we would remark that we should be very happy indeed to be able to tell them the best way to conduct an Apiary during this month, if we could, but perhaps It may be as well to be frank about it and say in the beginning "we dont know." If eolonies are all strong and the weather is cold perhaps the best advice we could give would be to say "let 'em alone." They might be given candy even now if any were in danger of starying but we hope none of our readers have been so improvident. Should your Bee House contain a large number of very strong stocks, during mild weather they may get too warm and become uneasy, or should the room feel close and have an unpleasant smell we would open the doors after dark and then close them again next morning before light. A caution is proper here, however, for 'tis to be remembered that our thick sawdust walls are as much to keep the inside cool at times as to keep the bees warm, and so we would never open the doors so long as a thermometer showed a lower temperature inside than that of the out door air. Many times we can keep the temperature at 40 degrees inside when it may be 60 or more at midday outside. Bees wintered out doors need no attention when they are healthy, unless It be to shade the hive, when they would get lost in a very light snow as has been so often recommended. To be frank again we have of late had almost as little experience with out door wintering as with Box Honey, yet we are always glad to get reports from its advocates. 'Twould be rather easler to stop here and not consider colonies that were not healthy and prosperous, for we really know of nothing we could recommend to be done for bees with the Bee Malady at this season, with much hope of success. Actual experiments so far as we know, such as taking the bees into warm rooms and feeding sugar syrup in elean comb, etc., at this season, do not seem to have been very successful. At the present time of writing Dec. 12, from reports we have been able to eolleet we should prefer to risk them at a temperature of 40 or 45 degrees, rather than 50 or 60, and if any change were to be made in the food we should if possible give them sugar syrup that was sealed up in the fall or summer; if this could not be had then eandy. We believe Feb. or even March have been the worst months, and cannot help thinking that commencing brood rearing has something to do with the matter. See problem in this No. We strongly suspect that problems 12, 13, and 16 also, will be found to have a close connection with the matter. In looking for facts to guide us in the matter we glean from the back numbers of the various Journals as follows: Bee Keeper's Magazine. Vol. 1, pages 73

"Will bees breed and rear young bees without being permitted to fly for a length of thme?" "Will the flour that is put in the sngar-candy recommended for winter feeding, supply to

some extent the want of pollen?"

As the Editor gives no other answer except the brief monosyllable "Yes" to both luquiries he has helped us but little. The second query however suggests an idea that may be valuable. Mr Wilkin stated he had made some such experiments, but nothing definite had resulted.

In A. B. J. Vol. IX pages 137 and 138, we find something that agrees much with our experience, viz: that bees when confined to the hive during brood rearing, become rapidly depopulated, and to use Berlepselis' own words, "The death rate increases from day to day, the most of the bees becoming weak and enervated."

We presume this refers to a condition of things

where pollen is absent from the hive.

Langstroth's Book gives us more information on the subject than all other sources combined, see pages 81 and 82, and he also mentions having succeeded in inducing them to use rye flour in the hive but this was during the month of Sept. To sum it all up it appears that brood rearing eannot certainly go on to any great extent without pollen, but we do know that brood is reared in strong colonies to some extent during Jan. and Feb. even when confined to the hive by cold weather. Should these same colonies be kept in a room warmed up to 50 or 60 degrees and confined to the hive, more brood might be reared if the supply of pollen was kept up, yet we have had no direct experiment to show that the health of the colony would not be seriously injured by such confinement; and as to building up weak colonies by supplying artifical heat, it seems that to do this they must fly out or have some such exercise. Whether this exercise can be given them in a way to answer the purpose and still prevent their being lost remains to be seen. There Is one thing we can all do safely, and that is to provide a quantity of Rye and Oats ground together very fine for them to use as soon as spring opens. We would advise providing about one bushel for every ten stocks.

#### WHAT IS A HIVE OF BEES WORTH?

R NOVICE why eannot we sell bees too? We have been selling Hives, Frames, Queens, and in fact almost everything pertaining to Bee Culture except Bees. Now we certainly have no objection to selling a whole hive, bees and all, if they are willing to pay what they are worth to us. Now what is a fair colony of Bees worth? That is, how much shall I charge a friend of mine for one?"

"Truly, the point you mention needs consideration. If our bees are valuable to us they would probably be so to others, and to those who prefer buying a colony all in working order rather than to undertake the task of transferring, Italianizing, etc., it certainly is no more than proper that we should have some kind of a regular valuation for them; but our queens—we dare not warrant them

pure, how about that?"

"Oh, we can make our estimate with 'dollar queens' and then if the one under consideration should have proved herself extra we can add a proper amount for desirable qualities; Messrs. Shaw & Son offer tested Queens for \$2,50. and should one have proved herself extra prolific besides, estimate her at from \$3 to \$5,00, as the

case may be."
"Very well, then we have only to deelde how much a colony's bees, combs, and contents of the combs are worth, and add them to the value of Hive (one story) Quilt and Queen, and—here, give us a pencil,—

List three items, from our price list are Ten frames of comb, metal corners and

fair average of worker comb, each . 7.50 Four quarts of Bees worth per quart 1.00...4.00

Pollen and brood etc. contained in comb 

Should the queen prove equal to the task of rearing three banded workers 'every time,' eall it about \$18.00 and if extra prolific \$20.00 perhaps. If in addition to all of these the hive should contain sufficeut bees to occupy an upper story at a season when these bees would be available for honey gathering or Queen rearing perhaps \$25.00 would not be an extrava-

gant price, in our own locality."
"There, Mr Novice you have gone and considered the "bright side" of the subject only, but 'tis for all the world just like you.

If a "quart" of Italians are worth a dollar, how much are hybrids and even black bees worth? and then suppose the queen does not rear three banded workers but only two, one or possibly bees without "ary" stripe, what is she worth? and supposing that combs should be black, and erooked, and nearty all drone, or or not built half way down; or supposing our colony had neither honey or pollen, and that there wasn't even one quart of bees, how much would a swarm be worth then? Be frank now for even in our Apiary we occasionally have Hives having some, if not all of these faults.

"Well, well, give us a little time and a better penell and we'll take all the 'dark shades' Into eonsideration too, let us see, to go back to \$16.00 and take the 'down grade,' we shall

have to fix a value on dollar Queens that turn out hybrids, and as we have repeatedly pinehed the heads off some fine ones, we will value them at only 25c. and as to black queens, well really, we never heard of selling them at all, until Mrs. Cotton's circular quoted them at five dollars each, but as we promised not to 'comment' we will only say that we could only consider a black queen tolerable until we could replace her with an Italian. Hybrids we will rate at 75c. per quart, and blacks at 50c., drone combs (as good for extractor) at 50e., and we really ean't rate old dark colored combs any less if you women do persist in thinking new white ones most valuable; if the frames are only partly filled, we'll say 25e, each, and now (where's that peneil again,) we have value of a poor swarm of bees thus:

HIVE and Quilt ......\$1.25

Ten frames of comb partly filled at 25c. . . . 2.50 Half a 'quart' black bees at 50c. . . . . . . . . 25 

There, how will that do?"

"But Mr N. we don't often have such a colony (all bad) in a simplicity hive, it would more likely be found in a box hive, or what is it they call 'em at the south?"

"Gum?"

"Yes 'Gum.' Had'nt you better subtract\$1.85 from the four dollars for hive quilt and frames, and eall a-the-

"Gum? 'Tis really too bad that your education has been neglected so much that you have never seen one. We should not value them any higher than common Queens, but Mrs Llzzie Cot---.

"But you are not to mention her any more,

you know."

"Well our colony of Bees we mean, aud at two dollars and fifteen cents we really think you eannot accuse us of not having considered the value of poor stocks as well as good."
"But do you really mean Mr N. to value the

eombs of such a colony at \$1.90 and the Bees

and Queen at only 25e.?"

"We do; for a very small colony of Black Bees even in the hands of an expert would be very uncertain property; but empty comb can be kept any length of time and we fear has never been properly valued. As 'tis a tedious job to fasten pieces of comb into frames we shall if possible endeavor to have all comb made in such frames as we prefer in the first place, and if not filled out they are always ready for the bees to take it up right where their predecessor left off."

Before closing it may be as well to consider that many large sales of Italian Bees have been made at figures considerably less than the esthmate, for instance, Adam Grim sold R. Wilkin, we think something llke 50 colonles of choice Italians in good movable comb hives for \$11.00 each, in the spring of 1872. Transportation from Wisconsin to Ohio cost a little more than \$1.00 each only. As the above was given from memory it may not be exact, but we think is not far out of the way.

Bees like other stock or merchandise, should be sold at lower rates in large quantities, perhaps it would be fair to estimate that a Beekeeper could as well afford to sell 50 colonies at \$12.00 each as to furnish a single one at \$18.00, taking into account trouble of prepar-

ing them for shipping etc., cte.

Just as we are finishing, friend Patterson, of Freestone, writes to know how many combs a colony should cover in Oct., for instance, to enable them to winter. Now to give a careful gness at it we would say that if you do not see bees clustered in at least three spaces during a cool day, you had better not undertake to winter them. If they can be seen in four spaces, call them fair; five spaces good, six spaces fine, and seven, "tip top." More bees than the latter we should not consider desirable for one queen.

#### PROBLEM NO. 19,

HAT are the necessary conditions to insure healthy brood-ralsing in winter, should it be desirable? It is pretty generally agreed we believe that full colonies winter much safer than Nuclei and many times we have colonies that have been weakened by different causes in the full to such an extent that the attempt to winter is unsafe to say the least, and yet they have valuable queens. Now where we have many such it would well repay the expense of a room artificially warmed and all cost of food could we thereby get them up into good trim to stand it until spring opens.

There seems to be a difficulty in the matter of brood rearing during confinement to the hives, but little understood. Our experiments given ou another page as yet (Dec. 12,) have produced nothing very encouraging. To be able to bulld up a colony at pleasureduring any month In the year (as we do in June for instance) and thus have a full Aplary of extra strength independently of the weather whenever we choose to invest the necessary amount to acomplish it, Novice estimates, would be an aequisition calculated to give Bee-keeping a great start, and that the desired information would be worth \$100 at least to us alone. We cannot raise good queens in winter 'tis true (or at least we suppose It is) but if it is really true Florists and Market Gardeners have become able to rear almost everything in the vegetable kingdom at pleasure regardless of season, why cannot we rear bees in stocks where we have good queens? P. G. fears 'tis almost an impossibility, but Novice remarks "we have ulthmately suceeeded with so many difficult points during the past season, why may not careful study and experiment vouchsafe us a similar reward in this; and may not such research at the same time unvail the mystery of the Bee disease?" Who among our readers will help? We shall be very glad of reports.

Mr. Quinby's excellent article in the Agriculturist for Dec. on wintering bees, contains the following:

"That syrup of sngar does not prevent it in such weather was proved in many cases the past winter where the combs were filled with it and nothing else, and were badly solled before the bees falled."

Now in the great number of reports we have received, no such have ever come to hand where the bees were fed in time to scal their stores. Thin, unscaled symp has in some cases seemed to be unwholesome, yet not like

honey after all. We really hope Mr. Q.'s suggestion of keeping the bees in a room warmed artificially to a temperature of 50% or thereabouts, may be practically a snecess, as bees never suffer thus in warm weather.

never suffer thus in warm weather.

Could they be allowed to fly out there would be no trouble, but we fear it would not do to fasten them in at that temperature, more especially toward spring. Darkness will not keep them in at such times, for we have had them buzzing about our ears when the room was dark as "ink in a stone bottle," and the worst trouble with dysentery we ever had was in the winter of 1868, when February was almost as warm as April. The bees were in a cellar and had natural stores. We could not keep the eellar cool even by opening the doors and windows nights. As Mr. Q. says, a good strong, healthy colony of bees seem to be almost oblivlons of any degree of cold, yet after they get thinned down or weakened by disease, cold seems to operate disastronsly, and a room warmed artificially for such, we think might save them. We have one just such, now near us; the bees seem bright and healthy, but the queen looks very small and thin, and we find no eggs in the combs. We have (to-day, Dec. just inserted a comb containing pollen, to see whether it will start brood-rearing. Dec. 4th.—We find the queen has deposited

Dec. 4th.—We find the queen has deposited eggs quite plentifully, although the pollen given them did not fill more than 2 doz. cells.

Dec. 9th.—Found eggs in combs as before, but nothing more. Placed the pollen next the eggs and improvised a wire house for them to fly in, which they did, but few of them got back to the hive without help.

Dec. 10th.—Gave them flying room in an upper story with wire cloth on top; with one corner of the quilt turned up they got back to the cluster without trouble. Kept the temperature to-day 10° or more higher by placing the hive over a stream of air warmed up to about 70°.

Dec. 18th—No eggs, but the bees look quite healthy, and have died very little since last examination. Pollen remains in the comb, all, or nearly all of it.

We entirely agree with the Agriculturist's view of selling recelpts. Of those offered for sale at prices ranging from 25c. to \$10, or more, we have never found one yet so offered of any value, and the same thing is almost invariably found more intelligently given, free in our Recelpt Books or through our Scientific Journals.

Should the bees get uneasy during warm spells of weather in winter, the doors or windows of the Bee Honse or cellar should be opened during the night. If they are confined to the hives by wire cloth this is all the more important. After they have been once quieted down and induced to go back on the combs the temperature may usually be allowed to come up to 40 or even 50 degrees without again making them uneasy.

## Gleanings in Bee Culture,

Published Monthly,

#### A. I. ROOT & CO., EDITORS AND PROPRIETORS.

MEDINA, OHIO.

Terms: 75c. Per Annum. For Club Rates see Second Page.

#### MEDINA, JAN. 1, 1874.

In answer to several inquiries in regard to the "tea-kettle feeder," we would say that it is neither patented nor *patentable*, nor is the idea of soldering perforated tin over the mouth of a tin fruit can, or any other utensil, for feeding bees, patentable.

On the wall opposite are a very pretty pair of chromos. They were received from H. A. King & Co., as samples of those they offer with their Journals. While we should not think of estimating their value at \$5 or \$10 each, we certainly consider them well worth the price they ask for them to any one wishing to purchase pictures.

When we quoted from Pres. Bingham's speech last month we had not learned he had said "Novice" where Mr. King had placed a blank, nor did we know that he had a "patent hive" "all his own." Novice rubs his nose meditative-ly on receiving the above items and remarks something about having supposed he had finished that piece of work and "got everything swept up clean."

This No. with our circular will be sent to many who are not subscribers, but hereafter none except sample copies will be sent unless paid for in advance; no exceptions.

We prefer to send Gleanings to none except those who really value it, and we should be very sorry to intrude it upon any one who might consider it an unwelcome visitor; therefore we accept no evidence of its being sincerely wanted other than the customary remittance of the modest little sum of 75c. or less in clubs,

Mrs. Tupper, in her Nov. Johrnal, says: "But if we must have a rule for the symp we will say a gallon of water to four lbs. of sugar." Now we thought Mrs. Cotton's "feed" at six cents a pound very cheap even if the recipe did cost \$10.00, and had we not wasted all our

money for the "Ambrosial" we might have sent for it; but Mrs T.'s plan is cheaper and she don't charge anything either. Let us see, a gallon of water weighing eight lbs, and sugar four, makes 12 lbs., and total expense is, less than 48c., or 4e. per lb. and we really think it the "most wholesome food that can be made," only we fear 'twould be like the old gent's discovery, viz: that sawdust was excellent food for cattle when mixed with bran, but a queer fact was that the more bran he used, the better was the "feed." We presume Mrs T. meant one quart of water, instead of a gallon, but she should remember that "little pitchers sometimes have very long ears."

We believe the consistency of the syrup as we find it scaled up by the bees is at about the rate of 20 lbs. of sugar to a gallon of water, with sugar at 11 1-2 c., the real cost of syrup that will compare well with honey and will certainly go as far for feeding, is very near eight cents per lb. When feeding must be done does any one doubt which is the cheapest? We have just sold our last barrel of Clover honey for twenty cents.

Bee Keeper's Magazine for Dec. contains an excellent article by Mrs. Tupper, entitled, "All About Hives." Her view of the subject is liberal and broad, with a clear view of wants and needs of future Bee-keepers. Her remark that "the time is coming soon, however when honey will not be sold in the comb at any price," is rather a bolder assertion than even Novice would make, yet we think it quite probable, We can hardly agree with her that bees should not be examined in winter, for our view of things, if we had waited until March, for the past two seasons, might have been a sorry one.

We have supposed that a good many had been saved by nursing them through the winter, and that "a stitch in time saved nine," etc., but it may be our efforts availed little after all. So many report having wintered finely in cellars where vegetables were kept, and where lights and footsteps were matters of daily occurrence, that we are inclined to think the disturbance occasioned by frequent inspection not injurious.

The suggestion that Novice claims to have first discovered that bees could be wintered on sugar is certainly a grave error, but that he first advocated the idea in print that sugar stores for winter was a remedy for the bee disease, and hence safer as well as cheaper, we shall maintain until some document be shown to the contrary. If Mr King does not yet feel

satisfied to recommend sugar in place of honey we would advise him to carefully record the results of the great number of practical experiments made of that kind.

A remark made in the A. B. J. intended to express our disapproval of the plan of not glving residences of correspondents, perhaps implied more than we intended it should, but we confess to a dislike of fluding when we reach the end of an article that 'twas from plain "John Smith" with no other earthly clue to his whereabouts; and although we cannot say we feel satisfied, 'tis the better way, we must admit we have had the subject presented us from a standpoint of view we had not heretofore considered, and that there are some very cogent reasons for withholding the full name and address. We hope we shall never be unwilling to acknowledge an error or injustice when satisfled we have committed one, whether it be commonly considered derogatory to the Editorial character or not.

Filling pieces of comb with syrnp as Mr King advises might have given very good satisfaction in 1863, but we fear our modern Apiarist would hardly be content with so slow and laborious a method; and does he consider too that in selling the Peabody Extractor he encumbers his patrons with a patented machine that must be eventually laid aside for the superior light running home-made ones? 'Twould be idle to argue a point that demonstrates itself so readily by actual experiment.

We most heartily approve of Mr King's method of furnishing hives of any kind ordered from mannfactories close at hand, and we commend the Dec. No. of the Magazine as particularly valuable.

We were certainly much pleased to receive Mrs. Tupper's Journal for November done up in a style so neat, and with such an attractive cover that we never should have recognized the old National Bee Journal at all, were It not for the name. We shall have to conclude that woman's taste is certainly equal, if not superior to that of the sterner sex, in such matters. The typography and general appearance of the whole fully agrees with its appearance exterually, and the whole work certainly does her credit. We wish her a large list of subseribers. Mrs. Tupper's Journal is tainly valuable, it could not well be otherwise, and right here we would ask why it can not be called Mrs. Tupper's Journal, and thus aid in making it possible to explain to our friends that the National Bee Journal, was a separate

institution from the National Agriculturist and Bee-keepers Journal of N. Y.

Mrs. T. says "Novice does not differ so widely from other Bee-keepers as he would have us suppose," which we are well aware of, for what was considered some of his most extreme views a year or two ago are now being echoed in a way that would sound very much like some who say when forced to concede a point, "why, we always said so." Now Mrs. T. your other remark that: "It has always appeared to us singular, to say the least, that in no one of our bee journals is found mention of anothereach one ignoring utterly the existence of another," was rough on us, for in our opening No. we certainly did notice all the Jonrnals, and there were more then than now, and we did also notice your own National Journal so well that one of the associate Editors wrote "awful bad" to us; if you meant that Gleanings wasn't a Jonrnal we shall feel worse still, for our Feb. No. informed you that 'twas constituted a Monthly as soon as the first No. was before the public.

If Adair's theory that bees breathe through their wings be true, and that "a queen with a clipped wing is like a man who still lives though a part of his lungs be gone," how will he explain the fact of queen's living and thriving with no wings? Is it possible in his experience practically, he has seen no such? We remember one of our best queens, in fact the mother of the colony that gave us the 330 lbs. in a season, had both wings gnawed off close, probably in being introduced, and she was equally prolific for two seasons at least.

Queens two or three years old are frequently almost destitute of wings. Our opinion of conventions was mainly intended for those who had not made bee-keeping profitable, and we have no reason yet to change our decision, that those who make their bees most profitable are not those who are foremost at our large conventions. Mrs. Tupper's report of the North American Society certainly contains much of value, and we tender her our thanks for giving it to the people in a correct and valuable shape, but we are pained to find that she again insists that Extracting injures the brood, totally ignoring the mass of evidence from those who have for years been in the habit of extracting honey by the ton. If conventions are to be valuable they should embody at least enough practical bee-keepers to keep down Adalr's folly, and Mrs. Tupper's inexperience with the extractor.

It may be well to add that 'tls only necessary to clip a very small portion (to avoid marring their beauty) of one wing of the queen to prevent loss in swarming; we have lately been informed that Adam Grim ellps the wings of his queeus in his whole Apiary of uearly 1000

colonies.

E this month omit the usual heading of this department out of respect to the sex of delinquent. Our readers can each and every one determine for themselves as to where she should be classed.

A subscriber writes, enclosing circular:

"As you have gone into the recipe business, I herewith send you a circular fram 'away down in Maine."

As we always prefer to hear both sides of all questions, we dropped the lady a line, which elicited the following:

I will only say that I hold myself responsible for all statements made in my circulars, and shall hold you responsible for any statements which you may publish in relation to me or my business.

Respectfully, Lizzie E. Cotton.

P. S .- Much is often gained by minding one's own business, or,

"To speak a little plainer that the point you may see, is it any of your business what my business may be?"

Now it seems to us the lady certainly cannot complain if we assist her in advertising, by giving a few extracts from her circular, without note or comment, and without any charge We clip as follows: whatever.

Cotton's Controllable Hive. I have succeeded after many costly and unsuccessful experiments, and earenly and determined investigations, in constructing a hive which used in connection with a new system of management, original with myself, is destined to work a complete revolution in the management of

management, original with myself, is destined to work a complete revolution in the management of bees.

The capacity of my hive for surphis honey is 31 glass boxes, containing when well filled about 4 lbs. each. These hives are so arranged that the bees have direct access to them from the main combs of the hive, without passing through any partition or obstruction whatever. Bees invariably enter these boxes without manifesting the slightest hesitation. They never remain idly clustering on the outside of the hive, as is so often seen in others.

Controlling or preventing swarming. I claim that I have solved, so as to render available to every bee keeper, this leading point to successful and profitable management of bees. Everyone who is acquainted with management of bees. Everyone who is acquainted with management of bees will readily see the great advantage arrising from successfully controlling or preventing swarms. I am able with my live to obtain either swarms or surplus honey at will. When swarms are desired I arrange at the commencement of the season to have them issue, and when surplus honey is preferred, I with a very simple process original with myself, turn the whole force of bees to storing honey, and at the same time keep up the same increase of bees as if swarms were allowed to issue, and to those who have not tested the matter It is surprising what quantities of honey a colony of bees not allowed to swarm will collect over one easting swarms. There have been several pians advocated for controlling or preventing swarms, but all have failed.

Food for bees. Feeding bees is sometimes absolutely necessary to save the stock from starvition, at other times it is desirable to feed to induce early swarms, and at other times feeding is resorted to for the purpose of filling the brood section of the hive with honey of inferior quality for the use of the bees, in order to secure in boxes all that is collected from the fields by the bees. I will here state that I am an advocate of feeding under each of the abo

take np the food furnished; at other times they have found that it has incited the bees to robbing, and many stocks have been destroyed by robbing, when the primo first cause was an attempt to feed some weak colony, as after bees have once been rendered furious by plundering a weak stock, or by, being fed all together in the open air, they often venture to attack strong stocks, and thus many stocks are animally destroyed; and bees as usually led frequently become diseased, suffering from dysentery, etc., through the winter, and often die before spring from this cause, or if they live through the winter they are so weak in the spring as to be of little profit that season. But with my food no such loss will be experienced. This food fills a want long felt by bee keepers. I warrant it the best food for bees that can be produced.

#### PRICE LIST.

For a vigorous colony of Nativo bees in Controllable hive, with full and minute directions for management, safe arrival at end of express ronte guaranteed.

For vigorous colony of Italian bees, other conditions same as above. ...\$25.00 ...30.00 For an empty controllable hive with directious for management.
Italian Queens.
Native Queens.
Glass honey boxes fitting Controllable hive, .. 15.00

each. ...10.00 Recipe for the manufacture of food for bees.... Feeders, made to fit any hive, singly \$2.00; per . .20,00 dozen....

....I.00 Lizzie. E. Cotton'
West Gorham, Malne. Address.

January, 1873.

DEAR NOVICE:—I like your little paper very much, and one reason why I like it, is because you are always ready to go for all swindlers and lumbugs, especially Mr. Mitchel, who swindled me out of ten dollars for a pretended device to fertilize queens in confinement. He fairly promised me that if the thing would not work as he said, he would refund the money; but after he had the money he refused to answer every letter that I wrote about it. So "go for him" and all other swindlers.

J. M. MOHLER,

Covington, Ohlo.

### DEPOSITORY OF

Or Letters From those who have made Bee Culture a Failure.

EAR NOVICE:—Although I am taking Bee
Jonrnals, I am destitute of bees now. During
1871 and 1872 I lost all I had, viz: 15 colonies of
bees called Black. Not one left. "Dysentery I dysentery! They were all I had; and were purchased by
getting a \$\frac{2}{2}\$ here and a \$\frac{2}{2}\$ it lhere; and getting one colony here and another there, etc., etc. All 1s gone.
Also bought two counties of the Buckeye Bee-live.
It proved worthless, and I lost my house and lot here
by it, thus throwing me flat. But I must have bees
next year—1874. What can you do to start me in Italians! Give advice, and aid me under these difficult
ties if you can. I can handle bees quite ensity.

Kindly, Yours,
J. DRUMMOND

Kyggewille, Gallia Co., O., Nov. 20th, 1873.

Kygerville, Gallia Co., O., Nov. 20th, 1873.

Now if it should come to pass that there is no remedy for the Bee-discase, there certainly is one for losing money in patent rights. Never invest in rights or receipts, but get one or two colonies some way honestly and build up again. Don't expect, or even accept of aid unless it comes as a just equivalent of fair, honest, days works; you can then feel that your possessions however small are all your own, and you are thus far as independent as the best among us.

## Honey Column.

HAVE 200 lbs. of comb honey, also 1600 lbs. of dark extracted, for which I ask 20c, per lb., all through. All my honey so far sold—at retall—has brought me a net of 28 to 30c, per lb.

JAMES HEDDON,
Dowaglae, Mich.

I have 400 or 500 lbs. of extracted and 250 lbs. of comb. I raised 1500 lbs of the latter and 800 of the former. Price for comb in transes 20c. per lb., for extracted from 10 to 12c. per lb., deflvered here.

J. L. DAVIS, Holt, Mlch.

Since above was set up we learn Mr. D. has sold all his extracted honey; and all the honey in our neighborhood has been sold for 20c. per lb., by the barrel.

#### REPORTS

## Ancouraging.

#### APIARIAN REPORT.

UMBER of Stocks in the spring 26, of whileh 3 were queenless. No. of stocks at date, 40. No. of the of surplus honey stored this season—mostly in 5 lb. boxes, 1541. D. P. LANE.

Koshkonong, Wls., Nov. 1st, 1873.

Had 3 hlves last spring, lucreased to 8, and 60 lbs. of oney.

Respectfully, Yours,
C. C. Millen, Chicago, Ills. honey.

Bees have not usually done very weil around here, especially where comb honey was relied on, have seen but one box of comb honey in this town this year; but by the use of the extractor and pienty of empty comb, I got from 8 swarms—some of them quite weak in the spring—three new swarms—natural—and 1026 lbs. extracted honey, and have more honey not extracted, than they will need for winter. Have sold all my honey for 15c, per lb., wholesale. Honey is now scarce.

I think you are hardly fair, by myneches to each.

I think you are hardly fair in proposing to publish "the names of your subscribers who have lost money in bee-keeping during the last five years;" they are not the class of bee-keepers that subscribe for GLEAN-INGS. S. ROWELL

Fairibault, Minn.

I made an extractor from a suggestion in your paper. I live in a dairy region, so I took one of my eans—we send our milk to the cheese factory—put in a cross piece far enough from the bottom to have the top of the frame come to the top of the can, put in some wooden pins on the under side of the cross-piece, to rest on the bottom of the eau, put in my gearing made from an old laroken paring machine, and it worked very nicely. I could take out about 75 lbs., when I took out 600 lbs., and am confident that I should not have got 50 lbs. of box honey.

Subscriber.

SUBSCRIBER.

All the stocks that we have now-over 40-are winter-All the stocks that we have now—over 40—are whitehing in our cellar on their own stores, and appear in a fair condition. After selling some in the spring we had 39 left. I should say we commenced with 50 hives. We have sold bees, honey and wax to the amount of \$429.13, and we can spare \$100 worth more, mostly comb honey; this is nothing great, but will do, considering the amount of farm work I have done, all of which is respectfully submitted, notwithstanding the "Blasted Hopes."

J. L. D. VIS & Co.
The Co. means my daughter, who will act as "P. G."

I have 81 swarms of bees, and have made lbs. of honey the past season. I cannot well do without the Gleanings, so here is your 75 cents. I have sold my honey for 15 and 25c, per lbs, and dont feel like giving it up.

GEORGE PARROTT, Winamac, Ind.

# Meads of Grain,

FROM DIFFERENT FIELDS.

OVICE, what do you mean by telling us to see our bees often in the winter? You do not mean for us to ever handle them when they are in winter quarters, do you?

D. A. BROCKWAY,

Manteno, Ili. Just this: That you go in the house after dark once or twice a week, and examine them by raising a corner of the quilt, or 1f bottoms are movable, raise the hive gently and see how many dead bees have fallen down, etc. It will be very convenient to have a lamp and matches

kept ready for use.
Whenever your visits seem to arouse or disturb them, we shall say that you are eareless, and we should not open the doors much during

extremely warm, or cold weather.

Mr. Quinby's plan of warming up the room by a stove, we fear, would make too much disturbance, unless great care be used.

A neighbor of mine, and a Bee-Keeper, was travel-lng in the south part of our State last spring, and stopped at a farm-house to dine. He saw a large mmstopped at a farm-house to dine. He saw a large number of bee-hives in the yard, and a greater part of them were the old-fashloned straw hives. Ho enquired of the farmer how his bees wintered, and was told that all the bees died in the Yankee hives, "but all mine Dutch hives made mit straw, not von die;" and every one of them was strong and vigorous. Now, Friend Novice, this report brought home by my neighbor, set me to thinking whether something might not be invented in the proper shape to hold our frames and bees, and answer the sume purpose as the straw hive for out-door wintering, for all bee-keepers have not winter houses or cellars.

J. Burler, Jackson, Mich.

Thanks for the item. We are well aware of the advantages of straw hives for wintering, see Quinby's Bee Keeping, page 73, but we really fear they would have little effect toward preventing the real Bee Disease. Can Mr. Quinby afford us any additional light on straw hives since his book was published? We have seen no mention of them in his recent articles on wintering. Mr B. mentions an experiment he is making with double walled hives made of pine lath, with the space filled with dry wheat chaff. Now our friends should bear in mind that the beneficial results from straw hives are as much dependent on the faellity with which straw dries out as its property of absorbing moisture; and in order to dry out quiekly It must not exceed say an inch and a half or two inches in thickness. Mr Muth of Cincinnati has just sent us a straw mat that is nieer, more tidy and compact than any thing we supposed could be made, and which will we think be excellent. It is stiff enough to make a whole simplicity hive in fact, and were we not afraid exposure to summer weather would induce decay too soon we should seriously consider them for hives the year round. They would have one very valuable quality, viz: lightness, and when we ascertain the eost of the article we will consider straw hives. Even for indoor wintering they would be quite desirable under eireumstances as follows:

Several quite cold days reduced the temperature in our Dechouse to about 32 degrees, a sudden change with rain raised the atmosphere outside to 50 or more, and the stream of warm damp air coming in the ventilator was eondensed in dew all over the blves, wall, etc., and even the quilts felt damp. Now under such circumstances straw hives would be much the most comfortable.

Dec 10th, the following has just come to

hand.

I am very glad my straw mats found your approbation, and I supposed it would. I shall not have time enough to make mats for sale this winter, but Mr. M. Nevins, of Cheviot, O., will always have plenty on hand, and leave a lot at my store ready for shipment. He will sell them at \$4.50 a doz.

Any body wishing straw mats may address myself or M. Nevins, Cheviot, Hamilton Co., O.

or M. Nevins, Cheviot, Hamilton Co., O.

I have imported from Germany, wetch and summer rape seed. Veich—in German, Wicke—affords excellent food for bees, and is besides, good food for horses and cattle. It is sown like rape, and about the same time, and grows like peas, with flowers in all colors. Rape we all know already. It takes 50 lbs, vetch seed and 4 lbs, of rape seed to sow an acre, at least, so I am informed by my German correspondent.

I can sell rape seed at 35c, per lb., and vetch seed at 20c, per lb.; or if sent by mall at an advance on the above rate of 5c, per lb.

above rate of 5c. per lb.

C. F. MUTH,

Ciucinnati, O.

The mats at the price would be rather expensive for making the sides of hives, but will well repay expense, to be used on top for outdoor wintering. As to whether they would be beneficial where bees are housed, we are unprepared to say. As the expense is but a trifle more than wire cloth, it would certainly be a good idea to try them if they can be arranged readily so as to confine the bees.

We certainly must have some vetches uext season. The "flowers in all colors," captivate our

fancy in anticipation already.

Dear Gleanings:—The two pieces of comb that I got, I positively think had no larva, only eggs and a few bees just blting the caps open. I had 19 cells rearred, 14 I centd cut out, 4 destroyed. Ten good queens for fifty cents. Mr. Crall built a bee-house and I got my bees in It too; we have 92 colonies in It and It is only a little more than half full, the irouse is 12xi6 feet, wall 10 inches thick. We put our bees in Nov. 13th. They appear all right, nice and quiet.

S. H. MILLER,

Ashland, O.

Is it not possible that those same hatching bees kept the eggs warm, and thus contributed to the unusual snecess of friend M? See page 79, Vol. 1.

I am a beginner in Bec Culture; I have read "Laugstroth on the Honey Bee," "Mysterles of Bee Keeping," by Quinby, and one volume of the American Bee Journal. I am a subscriber for the A. B. J. I commenced last spring with six stands, two Italian and four Black ones, three of them were very weak; they swarmed out after they were set on their summer they swarmed out after they were set on their summerstand. I have raised my own Queens and Italianized all my bees. I have now twenty-two strong stands, and they all have honey enough to winter. I am going to follow Bee-Keeping, and have read all of "Novice's" writing for a year and am interested.

Mus. D. M. Hall, Linn Center, Rock County, Wis.

We are particularly pleased with the above report, principally because it comes from a married woman; not that we have less sympathy for the Misses, but that 'tis too often the case, the former have too many eares to really enjoy Bee Culture or anything else. We opine many of the veterans would find it a task to make a better summer's work with the same start than has our friend, Mrs. H.; will she please report again next season?

#### WENTERING.

RIEND NOVICE:—GLEANINGS for August is at hand, and if you could have seen the smile of satisfaction with which its arrival was greeted, you would have been repaid in part, at least, for the disagreeable things some of the patent right men say about you for pitching into them.

On this subject I would only say; "Keep on in well doing," and "give 'em lits."

I cannot, however, subscribe to all the teachings coutained in GLEANINGS. For instance: I do not believe it will pay a majority of our bee-keepers to extract the honey and try to winter their bees on syrup, in order to escape dysentery, for I believe the severily of the winter had more to do with the loss of bees in this section at least, than the quality of their toney had; and in proof of this I will give you a few facts that occurred in this neighborhood.

A neighbor living half a mile south of here had eight swarms that he undertook to winter in a cotd steed, and lost six of them by dysentery. Another liv-

eight swarms that he undertook to winter in a cotal stied, and lost six of them by dysentery. Another living half a mile west wintered his on their summer stands, and lost all he bad by the same disease. A friend living one-fourth of a mile east brought his bees, consisting of four swarms, and put them in my bee-house. One of them, a late swarm, died of startation. The other three were in splendid condition when he took them away, about the thist of March; but after that date he lost two of them, taving no warm place in which to put them during the severe cold that occurred in March. Another friend living or of miles west undertook to winter his bees, consisting of 38 swarms, out doors. He had lost 7 up to Jan. ist; and then came and told me that a number of the remaining stocks were so reduced that he thought Jan. ist,; and then came and told me that a number of the remaining stocks were so reduced that he thought they could not five until spring, and asked me what to do with them. I advised him to put them In his cellar. He did so, and now tells me he only tost one stock after putting them in the cellar, and he now thinks that pertags the bees were nearly all dead in that before they were carried in.

I put 88 swarms in the honse to winter. Three of these consisted of bees taken out of my nucleus hives.

these consisted of bees taken out of my nucleus hives. One of the three was put in as an experiment, being queenless; and the other two had young queens that had not laid any eggs when winter set in, and I do not know that they ever did. I lost the above three, and one of my regular swarms by some unknown cause, probably old age, as the bees from the nucleus hives were nearly all old; and two swarms by starvation, leaving from 15 to 30 lbs. of honey; the bees having ciustered at one side of the hive, their stores being at the other.

My bees were put on their summer stands Feb. 19th, but when the weather turned cold all fire weakest stocks were put back in the house again, and remained there until we had pleasant weather. As a consequence, I did not lose a swarm by dysentery, the combs of those that died being as clean as they were by the full. in the tali

You will piease notice that in the above case. You will please notice that in the moore case, the bees that were lost had been kept near to and almost ail around me, so that their honey could differ but little in quality from what my bees had, and if it does not indicate that cold was the main cause of the losses beer-keepers sustained; I shall have to conclude that straws do not always show which way the wind

JAMES BOLIN, West Lodi, O.

Thanks, friend B., you have given us an excellent proof of the advantage of a good frostproof repository, and as Mr. Quinby says: (see notice of his article,) Cold must be one part of the trouble, as bees do not die thus in summer.

Now we should be very sorry indeed to have our friends think we were so firmly astride of our "sugar" hobby that we were incapable of accepting proper proof that we were in error. 'Tis not the winters alone that have produced the trouble, we believe all admit, and if it shall be found necessary to combine the sugar diet with eareful housing, providing we can thus get through the winter safely, we think few will complain. We have not personally made the experiment of out door wintering with sugar stores, but a neighbor has, and the difference was too marked to admit a doubt of which dict was healthiest.

# OUR. "Day before going to Press,"

# P

Questions not too lengthy, may be answered through this department even if not received nuill within two days, of the first of the month; and in two days more, of the initial of the month; and in two days more, nothing preventing, you may have your paper containing the reply. If our friends would use a separate, piece of paper for this, and in fact for each of the departments, and write on one side only twonld be quite a favor, but if it's too much trouble, don't do it, for we have the heavy how then have the second to heavy how then heavy how the month of the second to heavy how then heavy how the second to heavy how the month of the second to heavy how the second to heavy heavy how the second to heavy how the second to heavy how the second to heavy want to hear from you any ways

#### DECEMBER 29TH, 1873.

Mr Muth informs us Honey Jars will be somewhat less for next season, as per his advertisement which see.

Our bees are to-day, Dec. 27th, as quiet and healthy as we could desire, but the weather has seldom been colder than freezing for the last month.

Annals of Bee Culture has not yet made its appearance, although it was advertised to be ont about the first of Dec.

If friend Adair would succeed with his Quarterly he should be more prompt than he has been with the Annals heretofore.

The American Bee Journal of late does not reach us until near the middle of the month, and Mrs. Tupper's not until about the 25th although she proposes to be on hand by the 15th, The Magazine has we believe, been generally on hand a day or two before the first of the month. Cannot we all strive in a friendly way to see who will be most punctual?

Probably none of our readers have seen an urchin more pleased during the hollidays, than is Novice at present, who is rejolcing in the posesslon of a new Printing Office ordered expressly to print our little Journal.

Of course the "Windmill" had to be "harnessed" and brought into subjection, which has been accomplished perfectly, only that 'twill go too fast at times for his untrained hands, but with the assistance of Miss Mand or Master Ernest, to remove the papers from the Press and pile them, he gets along very well. As he must of course try his hand too, at type setting—in fact he is enjoying himself hugely at this very minute in setting up this very item- we trust everything hereafter, will appear in "apple ple" order. [He has already made " pi among the types to his full satisfaction.]

"P. G" says, "heware of making too great cal-culations on a fair specimen of typography, for the Journal even under Novlee's supervision may be a failure in that respect;" to which he adds, we may assure our friends if 'tis not well done we at least did our very best to have it so.

Since the above we have printed all but the cover and perhaps should make an apology for using type for heads of Departments, that we should not have used had we not been repeatedly disappointed in getting the proper kind in time. Also, should some of our friends by chance receive a No. with the print slightly askew, reecollect it was probably occasioned by a sudden see, retion of the speed of the

Wind-mill, too great for Novice's inexperience in feeding the press. If notified we will furnish a good copy in place of all such.

Novice will you be kind enough to tell us how to clean quillts—ours are stuck up with propoles—some of them are about as still as a board,—you will do us a favor by enlightening us on this point.

J. Oatman & Co., Dundee, Ills.

We really don't know of a cheaper way than to put on a new cover of cotton cloth. Benzine it is true will dissolve the gum, but we have found it rather unsatisfactory to wash them. Cannot some use be made of propolis (like bees-wax) that it may be made a marketable commodity? The quilts are not apt to kill bees even If quite stiff, and we use them two or three seasons without much trouble.

lst.—Will it do to store honey in wine or brandy casks, (we can bny such when it would be very difficult to get them made on purpose)?

2nd.—Do you think the young bees or queens would not be apt 10 make mistakes in an Aplany on your plan, supposing the grape vines were omitted?

3rd.—I expect to have all my bees—31 stocks—in "Simplieity hives" next suring. Would it do to pour a half pound of feed on the cluster of bees at once? Wouldn't it make a muss?

4th.—We are told to make our bees fill the apartment given them at all times. Suppose that on examining a hive in spring, the bees are found to occupy about three combs, all of which contain brood, but very little honey, that being in the other combs at each side. How are we to confine the bees to those three combs, and avoid the evil of cutting off their supply of honey and pollen?

Respectfully, yours,

G. C. Miller, Mount Hanley, Nova Scolla.

G. C. MILLER, Mount Hanley, Nova Scotla.

1st.-We have always used wine and brandy easks for shipping small quantities of honey, and found no trouble. They can be purchased cheaply, of almost any size at the drug stores, and seem to be just what is needed.

2nd.—We think the omission of the grape vines would make no difference whatever; we have a number of hives in front of the hous,

entirely without the vines.

3rd.—A half pound, unless very thick, and the colony very strong, would be sure to run out and make a muss. Try less.

4th.—You will find no such trouble in practice we think. Allow them honey and pollen sufficient at all events.

Onr readers may have observed an advertisement of a plan for securing straight combs, in some of our Bee Journals, during the past season, by our friend whose name appears below. The plan seems to be somewhat a combination of Dadant's Comb Guide Press, and directions given in the North American Bee Journal some time ago. We believe Mr. W. has sold a number of the Directions, but we think we have convinced him of the impractibility of his method, for one of our subscribers who had purchased it, offered to send it to us and in fact we know of no reason why information should not be freely communicated if valuable.

Mr. W. now sends it to us for publication, and we hope all credit will be accorded him,

where it is found to be valuable.

We have seen a similar device used, but found our thin pine strips to answer so well, and so much less trouble to us, to make and put in, that we have used nothing else. It should be remembered that we have always had our comb built between two others, and

under such eireumstances we have never had them leave the comb guide.

COMB GUIDE CONSTRUCTOR.

#### Way to Secure Straight Combs within the Frame. An Easy

Every Bee-keeper who keeps bees on the improved system of management, undonbtedly knows the great advantage in having the combs built straight in the frame. Without this advantage no one can make much improvement in bee culture. There are different methods of securing straight combs, but nearly all have some disadvantages. For neatness, cheapness, and simplicity, I claim the Tollowing plan has no equal: has no equal:

DIRECTIONS.

First. Make a straight edge of wood % inch thick by % inch wide, and % inch shorter than the in-side of top bur of frame. Second. Ingredients—Take one part Resin, nine parts Beeswax. Heat over a slow fire until thoroughly

melted.

Third. Have a wet rag or sponge in readiness, moisten the edge, turn the frame upside down, then lay the straight edge on the frame where the wax guide is to be formed. Then, with a teaspoon, pour a little of the melted wax on the npper end, (the frame being inclined at an angle of 45 degrees) and let it run down along the straight edge. When the wax has become hard, remove straight edge lengthwise to loosen it. Moisten the straight-edge frequently, and a good and reliable wax comb guide will be formed, equal to the best, which must be kept a profound secret.

E. J. Worst, New Pittsburgh, O.

P. S.—The melted wax must be kept warm, not hot. If the wax has the right degree of heut, it will seldom adhere to the straight-edge. If it chance to, scrape it

We are happy to announce that a neighbor of ours is making preparations to print all kinds of gummed labels by the quantity.

Orders for Honey Labels may be sent to us and the labels will be returned by mail post paid. Prices are, for Labels in two colors, with name and residence of Apiarist, and name of

source from which the honey w	ras gamereu.
1,000	\$2.75
500	1.90
250	1.45
No orders filled for less than the	- latter muice

# Sl.OO Queens.

N this department we propose giving gratuitously the names of those who will undertake to rear queens for \$1 each under the conditions we have made. While we cannot undertake to be responsible for all the names given, we shall endeavor to insert none who are not in the habit of fulfilling all agreements.

And if nothing interferes, I shall sell warranted pure Italian Queens for one dollar next season.

JOHN L. DAVIS,

Holt, Mich.

We think If Mr. D. or any other Queeu rearer will warrant all \$1.00 Queens to be strictly the progeny of earefully tested mothers 'tis all that we should expect of them. Purchasers will the stand the standard of them the standard of the s will then stand the same chance of getting fine queens that those rearing them do, and the latter class will not seriously injure their Aplaries by selling the best continually and keeping the poorest, for even should we receive \$10 or more each, twould be a losing business to select the best we had for every customer who was willing to pay for such

In Nov. No. page 85, you ask what the last, etc. 1 will, and will send them by return mail after the sea-

son is fairly opened. I have been selling queens for \$1 cach for three years. Choice queens I sell for \$2, and tested for \$5; it requires the use of a swarm for thirty days to test a queen, hence it is cheaper to sell for \$1 or \$2. I agree with you that orders should be filled by return mail. I have never failed to do so in but two cases, and they were out of season. This is a good thing in selling \$1 queens.

W. Hosmer, Janesville, Minn.

Glad of your assistance Mr. H. If you can rear queens at the rate you do honey, we shall not used to worry for fear orders can't be filled.

#### ADVERTISEMENTS.

Advertisements will be received at the rate of ten cents per line, Nonparlel space, each insertion, eash in advance; and we require that every Advertiser satisfies us of his responsibility and intention to do all that he agrees, and that his goods are really worth the price asked for them.

#### MUTH'S ADVERTISEMENT.

#### JARS NEY

8.50 .75 Tin Foil Caps, "
Tin Foil Caps, "
One and Two Pound Labels, per gross, ...
Three "
Three "
Three Truit Jars, per gross, ... 65 1 qt. Self-Sealing Dietator Fruit Jars, pergross,... 17.00

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ELLEN S. TUPPER, Des Moines, Iowa.

Liberal terms to Agents. Specimen number free.

TRY IT 3 Months for 10 Cents; or with \$3 Obromo for 50 cents; or 6 months with 50 Obromo for 50 cents; or 6 months with 52 Obromo for 50 cents; or 6 months with 65 Cents of Paradise," a first-class \$6 Chromo, 15 Cents of 10 Cents, for \$1. The National Agriculturist and Bee Journal is a 16-page paper of 64 columns, handsomely illustrated in all its departments. One of the best Agriculturat and Family papers published. Only \$1 per year, or \$1.25 with best Bee-Book, or \$1.50 with a beautiful Chromo. Bee-Keeper's Magazine, a 32-page monthly, same terms, or both for \$1.75. Send now for samples, and Liberal Terms to Agents free. II. A. KING & Co., 14 Murray St., N. Y. 1w2

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## DEVOTED EXCLUSIVELY TO BEES AND HONEY.

Vol. II.

FEBRUARY 1, 1874.

No. II

#### HOW TO CONDUCT AN APIARY.

No. 2.

We are happy to add that up to this date, Jau. 24th, no reports of disease have been received, but as it made its appearance last winter in many places only after this date, we cannot be certain as yet in regard to the matter. Our winter has been as yet quite a mild one in this locality there having been but three or four days when the temperature approached zero. As our colonies are unusually weak this winter our Bee house has not kept up the temperature as well as formerly, in fact we found it as low as 30° on one occasion and before we could start a fire in our stove and warm the room up, one of our weakest colonies had died.

An examination showed clean combs and no trace of disease, but the cluster had dwindled down until not half a handful of bees were left when the low temperature finished them; they perished in the midst of clean scaled stores.

Messrs. Shaw & Son of Chatham, this Co., also report having lost quite a number under the same circumstances and now unite with us in pronouncing all attempts to winter Nuclei, but a "vexatious bother".

We discovered that during very cold weather the lower ventilator could be closed entirely without bad results, and as this kept the room much warmer we consider it best, during very cold weather. Our friend Shane, a few miles distant, gives the same experience and his colonies are many of them quite strong; he also covered the ventilator with a piece of cloth to make it perfectly tight.

With the loss of the "cider fed" colony meutioned ou another page, our number now

counts only 55 instead of 57.

There seems to be a tendency to an opinion, much favored by both Mrs. Tupper and Mr. Quinby, that moying stocks during extreme cold weather is very injurious, and is sufficient to produce dysentery. Such may be the case with bees fed on natural stores, but 'tis most assuredly not the case with those sugar fed, for ours the greater part of them were re-housed the last of Feb., last winter when the temperature was 4° below zero; see Gleanings for March, page 20. No bad results followed and no trace of dysentery other than that of some weak nuclei that were diseased before in consequence of being fed late and being too weak to seal it up. The Quinby hive with ail natural stores and, that had not been disturbed in any way at all, were badly affected and soon dled although strong in numbers.

If Mr. Q. would give the address instead of

just the county and state, we might write to Mr. Elwood and ascertain whether those colonics he mentions as having the disease so badly, were fed with the syrup early enough in the season to give them a chance to seal it up. Even should his experiment have given no result in favor of sugar stores it only proves that sugar is not always a preventive; the large amount of testimony given during the past three seasons pointing clearly in favor of the sugar, should also be respected.

We had supposed plain cases plenty, where it bad appeared in its worst form when the bees were housed in the warmest quarters, but we shall be agreeably surprised if we find we have been mistaken. In regard to fastening the bees in the hives by wire cloth in winter as we have described, we are at present decidedly pleased with the plan. During warm spells many go out in the porticos that fail to get back, but with the space below the frames as in the Simpleity hives we have no such trouble.

I put my bees luto winter quarters about the 10th of November, I think they are in splendid condition. If the weather is suitable how soon would you advise to set them out for a "fly"? How warm should the weather be in order to 40 it with safety?

S. F. Newman, Norwalk, Ohio.

We would not advise putting them out at all for a "fly" unless they seem uneasy and impatient of confinement, and not even then unless some very fine weather appears in Jan. or Feb. The air should be warm enough for a bee to take wing again, even should it alight in the shade, or many may be lost in their anxiety to fly after being shut in so long, not heing able to regain the hive. If stores are wholesome and ventilation proper they can endure confinement for four months or more as has often been proven. Warm weather in winter is so apt to change suddenly for the reverse that we must consider taking them out for a "fly" a risky operation at any time, although should several quite warm days and nights occur in succession 'twould without doubt be a gain to give them a taste of the open niv and thus encourage brood-rearing a little

Taking them out by moonlight in the evening would be an excellent way, could we always be sure that the ensuing day would be a pleasant one, thus giving them time to quiet down before morning, and obviating the danger of their rushing out in a demoralized body, without taking the usual points of their home. Be sure to give each one their accustomed stand for they will remember it under such circumstances four months or more.

## GUILTY OR NOT GUILTY?

ESSRS. A. I. ROOT & CO:—THE last No. of GLEANINGS was duly received, and after reviewing the Vol. I think it about the best investment in the way of bees I have recently made, as it seems like n complete casket of vniuable information to every Apiarlan.

In the next Vol. please do not nitor the size of pages, so that one Vol. will bind with another, nor cut the leaves, but leave that for the binder to do. I like the generous margin as it looks well and leaves a chauce for notes etc.

ieaves, but leave that for the binder to do. I like the generous margin as it looks well and leaves a chauce for notes etc.

The material for six hives came duly to hand. Freight, \$2.70. As you invite friendly criticism we will try our hand if it is a little "onpleasant," and as Shakspeare hath it "I will nothing extenuate or set down ought iu malice."—In your circular (5th ed.) you remark "and if no better lumber is used than barn boards (with no loose knots)" and on page 63 of GLEANINGS "There is nothing like system and precision etc." Now I must conclude that you did not make the hives as they embrace none of these principles, so far from it in fact that it will be a tight squeeze og five out of the six, as two of the sides have each a very large knot, one quite loose, 2½ by 3½ nches, the other larger and very rotten, and which if dug out would require a piece of putty the size of your little finger to fill it. One of the tops is cracked so that I will not use it, nnd if the material is bad the workmanship is quite in keeping. I have owned power saws (nias I those days are gone,) and hnve done some sawing—making clock cases etc. but If I ever did such work as that, God lorgive me as I would not forgive myself. The rabbets are not deep enough for the sides into over 1-16 luch, and are thinner at the bottom than the top, and none of the top boards fit like "clock work" except nt the ends—at the side they lack from ½ to 3-16 of touching the side of the cap, and one of the end-pleces is too short, while another is to narrow. In fact altogether they are the poorest tot of hives of any pretensions I have ever seen. Just say nothing until you have seen some more of the same man's work, theu judge for yourself how far I may be correct here.

Now for the other side, I like the idea first rate, and

correct here.

Now for the other side, I like the idea first rate, and

Now for the other with screws. If I make others correct here.

Now for the other side, I like the idea first rate, and have put them together with screws. If I make others I shall put them together on a mitter so that no end wood can be seen. I shall use those I have, but instead of using them two stories, will take a side from each of two hives and put the two hives together so as to form one horizontally, fastening them together with the same screws and a piece of board just wide enough to fill the rabbets. Now move the combs into the center with a division board each side, and place an empty frame or comb inside of outside comb, when he frame is filled put it outside with an empty one hisde, and so on till your hive is filled, if your stock is an ambitious one and will do it as some have done. It'l should require some bees in spring or summer could you send me one hive containing four small stocks of Italians, say two frames each, queens first rate and combs ditto? Hives of the simplicity persuasion. If so at what price?

Hoping our relations through next year may be as pleasant and profitable as the one just closing, and wishing every success,

I am yours truly,

Wm. H. Kirk,

Dec. 23rd, 1873.

Waterbury, Conn.

The double Simplicity Hives have reached me in good order and quick time, and at an expense I believe of only \$1.50, I have them setting in the Post Office and have explained their mystories to hundreds of people. All admire their Simplicity and evident usefulness, I shall manufacture them in the spring—will have buzz saw in operation shortly.

Respectfully,
W. C. GRIER, Lamar, Mo.

DEAR NOVICE: [all but the Novice] I did not intimate that your hive was rough, expecting it to meet the public eye; neither for much of a criticism, it was good enough—but being a cabinet maker it is ensy for me to make work rather smooth. Go on in exposing rascality sharply, but at the same time with a kind heart. Yours for MILK and HONEY,

STEPHEN YOUNO, Mechanicsville, Iowa.

Now 'twonld be quite a "comfortable" way of getting along to pretend there was "another man" who made those six hives, but on the

whole we think we will plead "gnilty" and frankly acknowledge we made them ourselves, and are alone responsible. We may add in extennation and by way of apology that the hives sent Mr. K. were the very last of a lot of about 200, and that as 'twas at a season of the year when they were little called for, we had not even lumber on hand for more, still we supposed we sent him material for six servlecable hives. In regard to the knots we would say that we always expect every hive to be well painted before being used, and this will fasten loose knots as we have had proof in our own apiary, the Averill Chemical paint we have mentioned being peenllarly adapted for this purpose. If our friend will pardon the snggestion, we will suggest that a knot-hole seems to strike the fancy of the bees as being particularly nice for an entrance, the rough rotten edges affording them a secure and natural foothold. We have one such hive and 'tis amusing to see them swing ont and in "their knot-hole" as If'twas endeared to them by some such ties as the "old oaken bncket" etc. is to us. We have thought of mentioning the matter before, but feared some one would be having them

all patented. Novice once remarked in answer to P. G's. remonstances that we would always save the knotty pleces for home use, but it must be that we by mistake included friend K. In our "home circle" which honor he doubtless would respectfully deeline. In regard to tops we use "cheeked" or slightly split ones for bottom boards as they answer quite as well, and we supposed the slx hives would be used two story so that at least three perfect tops could be found. We cannot imagine how an end-piece could be short unless an old one got mixed in from some hives made in our first experiments, for whatever other faults there may be, we certainly can saw the length of all boards alike and do do it. In regard to the width 'tis more difficult, for nnless we can get wood perfectly seasoned, and any wood-worker knows how difficult this is, the boards will shrink unequally, but so far as the body of the hive is concerned this makes little difference, nor can we see that the cover Is materially injured should it shrink so much as to lack is inch on each side; we are using many such and have never yet known a drop of water to get inside, which is more than we can say for any other kind of hive we ever used. We have never claimed our work to be first class (see Feb. No. page 13. Vol. 1st.) but we can appreciate good work we assure you, and the Connecticnt mechanics who make elock cases would be just the chaps to make hives as they should be, and now Mr. K. cannot you lnduce some one near you to take the job? 'Tis true that just as much honey might be seenred by using hives made as we furnish them, but we should like hives ourselves made as nice as a "work-box."

As an cyldence of the differences of opluion we give an extract from frlend Grier's letter in regard to hives out of the same lot and sent about the same time only we put them to-gether; perhaps we have a peenliar skill in making good hives from poor materials. Before closing the subject we would say we have asked friend K. to send in his bill for allowances, and we hereby extend the same invitation to our whole circle of enstomers. If we have been remiss don't be backward in letting

us know.

The pian of making single hives double width is ingenious, but how about the covers? We have often thought of It but could not get over the top and bottom difficulty. As screws would be much more expensive and the trouble of taking a hive down after it has been once properly set up is such we hardly think we would use screws; besides the cross nalling holds them "forever" especially if the boards are put the proper side ontward as we have directed. We feel sure you will not like hives made on a mitre, we have tried such, they are not as strong at the corners and are unwieldy to nail.

So many have applied to us for bees that we dare not promise any at any price. Four small colonies can be put in a Simplicity hive without trouble; we have reared four queens thns, and had them all laying nicely with an entrance on each of the four sides. [Don't you

see how handy the knot holes come again?]

Mr. K. we shall have to thank you many times for your suggestions. In regard to eutting the leaves of GLEANINGS we think by far the greater number of our readers would prefer them so; and we regret that the margin ls not as great as we had intended to have it. As our paper is all purchased for this year we shall have to wait until another season.

[For Gleanings.]

#### RUSTIC BEE HOUSES,

OVICE:—Thanks for GLEANINGS.

I have constructed a bee-house on this plan,
I first dug an excavation two feet deep and 10 I first dug au exeavation two fiet deep and 10 by 20 feet square, built a frame in it lathed it over and covered it with straw two feet deep over the whole of the building, I then covered it with a tight board roof. The ground which I shoveled out of the cellar I packad against the side of the building, starting with a base of 5 feet, and tapering to 2 feet at the caves, I made a floor of dry saw-dust four inches thick and put in 40 colonles of bees at a little elevation above the floor. I now have a house that will never get tamp from the perspiration of the bees, the straw roof being a perfect ventilator.

Bees are wintering well up to this time, shut in the hives securely at the bottom, but not air tight, and with wire cloth over the trames to keep them from crawling out when the temperature gets too high. Ia cold weather I leavo the cloth quitts on the frames, and in warm weather I remove them. How is that for high, Novlee?

for high, Novico?

E. J. WORST, New Pittsburgh. O.

Tip top for high, especially if you do succeed in wintering this time. We are the more obliged as you have assisted as in replying to the following, which was in type, with our reply when yours was received.

Meen yours was received.

Bee-keeping in this section has about played out. More than half of those who have been in the habit of keeping a few stocks have become discouraged, having lost from one third to all of their bees. I have been considerably disappointed for the last two scasous is not having any surplus honey, although I have lost but a few stocks. I winter on their summer stands and the bees get so weak by spring that the honey season is over before the bees are strong eaough to improve it. As I am not able to build a bee house such as you describe, I would like your opinion of a house made of wild hay, of which I have quite a quantity.

Say, set stakes to form a room ten feet square, board up the outside (not tight) with fence boards, then set another row of stakes about three feet outside of the tirst row, and fill in between with hay. Lay poies on lop, then stack hay on them making a regular hay stack with a reem inside shelved off for holding hives,

of courso make an entrance three ft. by six with double doors. Would it need a floor? and would the spaces between the fence boards on the sides, and the poles on top be ventilation enough? or ought there to be ventilators put in top and bottom?

I could build such a house with but very little expense. An opinion from NOVICE would be regarded with great favor by

SAMUEL. C. WARE, Towanda, Ill.

Such a house will answer every purpose we feel sure and we think no ventilators will be needed. Hay enough should be used to make it perfectly frost proof and we think 'twonld be longer in warming through, late in the spring than houses of sawdust walls. Such plans have been in use in our vicinity for several seasons and seem to answer every purpose, and we know of no objection unless it be a general untidiness, however this might be remedled to a great extent. We would advise throwing up the earth in the centre and making a ditch all around to keep off surface water and having about six inches of saw dust on the ground for a floor.

Perhaps a window or windows could be added and the whole made so as to answer very well for a honey house in summer also; 'twould be nice and cool, the odor of the grass would be quite agreeable, and as almost every one can get swamp grass for cutting, perhaps this rustie Bce House in conjunction with friends Butler's and Muth's straw hives may be the thing

after all.

Who will build the nicest one, i. e. to be all "home made"?

P. S. -Mrs. N. says, "but the hay seed will be rattling down into your honey, and then suppose you should spill a barrel full or so on your saw dust floor what would that do, and would not rats and mice work in the straw etc.?"

And that reminds us of a little incident to wit: We think 'twas during a hot Sabbath in August that Novlee looked into the Bee Honse and found a brilliant mlrror of clover

honey eovering the painted floor.

Now P. G. did seold because he said it made no difference if the bungs of the barrels were not left uppermost, and also that there was no need of driving them in so "awfui" tight, but better still she insisted on having the floor all carefully washed up nice, the Saturday previ-

ous

Well, as we sald, there was 'the honey; the hot weather had so expanded it that it had pushed the bung out and nearly 14 of a barrel was on the floor, if the barrel had been rolled over more, more would have got out. Novice of course "says out" for Mrs. N. and as all the of course "sang ont" for Mrs. N. and as all the rest were at church or somewhere, "Blue Eyes" had to go too; with honcy knives and spoons a terrible dipping was kept up which "baby" enjoyed hugely until the close hot room (bees would "help" if the doors were opened) began to seem monotonous, but thunels, spoons and ladles and a series of chirrups from "papa" lengthened out her baby patience until the last bit was seraped up and then didn't we stratten up our tired bucks; that is, Mrs. N. did, after the floor was washed clean once more, Novice amusing "Blue Eyes" with some honey and a feather meanwhile.

Well, we got it ali, except about a pound which was seraped into our "coffee pot" that we keep to hold "bad honey for feeding" and the same barrel was recently sold for 20c. per

lb. and was pronounced "tip top."

MORAL: It will pay to have a tight floor to your bee house and to keep it well painted; also drive the bungs in tightly and if convenient leave them in very hot weather nppermost, and lastly never disagree with the "women folks" if they do get fidgety if the floor is not always kept "just so clean".

# Gleanings in Bee Culture,

A. I. ROOT & CO.,

EDITORS AND PROPRIETORS.

MEDINA, OHIO.

Terms: 75c. Per Annum.
For Club Rates see Second Page.
MEDINA, FEB. 1, 1874.

PLEASE excuse small type; 'tis our old complaint, we have more matter, than room.

WE find the *Prairie Farmer* one of the best, among our Agricultural Exchanges, its appearance is bright and attractive, and its articles are from our real live business men, aye and women too, and what pleases us more is that their writers have a defluite place of existence instead of being dropped loose in a whole county as is so much the fashion of late.

WE cannot say that subscribers "pour" in, as some of the papers do, yet we are kept sufficiently busy to render it possible that a mistake may creep in now and then. Whenever such be the case drop us a postal card and dont be bashful in stating just where we've "put our foot in it." We certainly "mean well" as the boy said of his dog when he bit a piece out of the man's leg.

Our bees "seeld" when the temperature of their room gets below 35°, when warmed up to 40° or 45° they are as still as if dead nearly, but when it is increased to 50, or 55 they begin to emit quick sounds at intervals, that seem to us to be interrogatories, as much as to say, "wont it do to let us have a fly?" It the temperature is kept there, they soon get quite uneasy. About 40° seems to us, the most desirable point.

Candy costs from 25 to 30c, per 1b and sugar about 11½ only. By stirring it with a little water, and then baking it in a slow oven until all the water is expelled, we have hard cakes that answer every purpose of candy so far as we know, at a cash outlay of only the prico of sugar. Now the above solution of Prob. 1. must be worth at least \$5.00 to every bec-keeper but we don't see how we can sell receipts, for they will tell their neighbors.

THE "Honey Bee" price 50c. By Aaron Benedlet, Bennington, O. is before us.

The paper is cheap, the print bad, and the contents mainly extracts from old numbers of the A. B. J. Although published in 1873, we can find no mention at all of the Extractor nor of the recent troubles in wintering. The concluding ltem is, "Hives should be so constructed that the frames will fit tight in the hive, preventing the space between the sides of the lives and frames, etc." Truly, we fear the Island wberon om friend rears untested queens for \$5.00 has shut him out from the rest of mankind, as well as his bees. A veritable Rip Van Winkle, in Bee-calture.

We would refer the numerous friends who have written us for bees, to the advertisement of Adam Grimm, for even after paying freight his prices are less than we could sell for. The best honey-gatherers we have ever had, were bees from Queens purchased of him.

To such of our Southern readers and others as have their bees flying when this reaches them, we would say, commence giving them dry sugar as soon as they will use it; place it in the sun but out of the wind and get them them to "building up" as fast as possible.

Their rye, out or barley meal may be given them at the same time and place, and the nearer we can get them to approach their natural activity, the better; the use of the sugar will prevent their straying to sugar-camps etc., but will not prevent their going for the blossoms when they appear. Dampening the sugar will hasten matters but is apt to incite robbing and to call them out in unseasonable weather.

# "BEES WINGS" AND SUNDRY OTHER MATTERS.

BY D. L. ADARR.

at the last meeting of our National Society at Louisville, you make an unfair statement when you fimit it to "that bees breathe through their wings," thus conveying the impression that I located, the breathing apparatus and the imags in the wings. Bees breathe through Spiracles or pores uwier the wings, and I so stated, I further stated that from these the air is led through delicate tubes to every part of the body, even to the tips of the wings, and no naturalist will deny the statement. No organ is specialized as lungs, the bees have no lungs, except those albest which follow the veins or circulating fluid throughout the whole bee, and the air is brought in contact with the blood through the thin walls of these tubes in every part of the system, just as is the case in the human hungs. Would it not be fairer to publish the whole paper so that your readers could judge for themselves, or at least make a fair statement of what you call "Adairs folly." (By way of parenthesis: Did it ever strike you that eailing a man a fool was not courtesy? Do you think you can alvance Bee-culture by calling hard names? Or do you think your judgment is so infallible that you are instilled in calling a man a fool because you differ with him in opinion? If I am in error convince me of it by fair argument but please quit calling names.]

The only argument you use is the statement that one of your best queens, the mother of the colony that gave you 330 pounds of honey had no wings, and she was good for at least two seasons. Now, as you attribute Mrs. Tuppers statements about highing brood to her "inexperience," you will not certainly get mad and go to calling hard names if I apply the word to you, and queestion your facilities for judging of what a good queen is; for so long as you manage bees as you do, in hives that will not allow a queen to show what she can do, you will certainly be "inexperienced." Until you give the queen a compact brood nest sufficiently large to accomodate her with ample room, at all times, to deposit every egg she can be stimulated to produce you will be "inexperienced." So long as you shift the brood about and mix it up indiscriminately in top and bottom story, you will have your bees continually disorganized, and even a queen that is badiy diseased can inraish all the eggs that are required, and you will be "inexperienced;" and you will be "inexperienced; "and you will suggested, before you investigate it.

That Adam Grimm clips his queens wings and gets a paying crop of honey is no reason why Adam Grimm might not do better if he did not so mulliate them and had his bees in hives that would require perfect, vigorous queens, and allow of better management.

orons queeus, and anow of better management.

I have a letter from one of the best entomologists in the U.S. in which he says:—"Your argument that the wings of insects serve as lungs is manuscrable. It must injure the bee thus to mutilate it and reduce its strength." So says Dr. Packard, Editor of the American Naturalist, and author of A Guble to the Study

of Insects etc. and Professor in the Academy of Sciences, Saiem, Mrss. and perhaps there is not a naturalist who is acquainted with the anatomy of the bee that will take any other position.

You emphasize the word "Practically." Now, I quit the barbarous practice of cropping the queens wings, several years ago, because I discovered that they were not so prolific as those with wings. As a rule they will, mmy of them, live just as Jong; in fact, one of the oldest queens I ever had, ind no wings. So lived until the sixth year but never had a populous colony, and many of her offspring were without wings, on the contrary a queen that lays, up to her full capacity, will not live long. After one full seasons laying she becomes almost worthless. When the definite number of egg germs in her ovaries are exhausted she dies from exhaustion, as does the worker bee when it has expended its vitality in labor, and I think it likely that when we get to inderstand perfectly, how to manage bees; and when queens are bred up to their full vigor, that a queen will not live longer than a worker.

Yours truly,

Hawesville, Ky, Jan, 7th, 1874.

Hawesville, Ky. Jan. 7th, 1874.

We welcome the above as being strait forward and manly with the exception of the remark that we ever considered or thought of calling friend Adair a fool, or in fact any one else, or of using any similar term, in all our writing on Bee-eulture; nor can we for an instant believe that any of our readers have so understood it. We have considered many the-ories like the above "sheer folly" and in extreme eases think it best to so pronounce them to prevent if possible the host of novices from accepting and acting on assertions easily shown to be grievous errors.

Mr. A. in his present remarks is mild in comparison with the paper referred to; that he started out with established facts, in part at least, and that he is somewhat contradictory, those may see who eare to go over the matter.

We declined publishing the paper then, and do now on the ground that very few people indeed are capable of deciding what is truth and what is error in the Microscopic World. And we would also question the propriety of the Rural New Yorker and other papers submitting to their readers such an article, when mankind is so prone to take up and disseminate error, most especially the "twaddle" that has passed as true science for years past concerning the "wonderful revelations of the Microscope."

Such of our readers as would know our grounds for calling Adair's paper "folly" we would refer to "Carpenter on the Microscope," pages 570 and 574. We extract in substance as follows, the italics of which are our own: as follows, the italies of which are our own: "The wing of the bee, is composed of an extension of the external membranous layer of the body,— over a framework formed by prolongations of the inner horny layer; within which prolongation of the inner horny layer,—trachae are to be found,—around which are found channels, through which blood circulates, during the growth of the wing and a short time after its completion. Each of the nerves of the wing contains a trachae, or air tube,—which branches off from the tracheal system of the body; and it is in a space around the trachea that the blood may be seen to move,—when the hard framework of the nerve itself, is not too opaque. This circulation may be seen readily in the wings of bees, while young and growing,—shut up motionless in their cases; for this condition of apparent torpor is one of great activity of the untitive system;—those organs, especially, which are peculiar to the perfect insect,—being then in a state of rapid growth, and having a vigorous circulation of blood through them; but this movement soon ccases and the vings dry up."

Are we not right in concluding that by the

Are we not right in concluding that by the time the queen has reached the age at which she usually lays eggs, she has no further use for her wings than for flight, for their eircula- growiu'."

tory system has then dried up as Carpenter has it, and the clipping them then, affects her about the same as does the cutting of our hair or fluger nalls.

So much for the Microscope: Now should practical Bec-keepers agree, after trying Queens elipped and unclipped side by side for a number of years, that they could see no difference in fertility, are we not excusable in terming the paper as we did. So far as eminent Naturalists and Entomolgists are concerned we have only to say it will be the worse for them if they endorse the paper in question and its winding np especially.

Agasssiz has given us one illustration of the "stubborn folly" of some, who stand high before the world, that will not soon be forgotten in Bee-culture. Again should one Apiarist of limited experience in extracting, make a statement directly at variance with one hundred or more who had large experience, and who all agreed in their statements, what term should be applied to such a course?

In both of the above eases much mischief might be done to beginners were not the matter corrected at once.

Who has not seen one of their rousing swarms of bees sailing away to the woods, and stood helplessly thinking they would give their best five dollar bill if just one "little tip" of one of that queens wings was off?

And in latter days, how many novices have wished they only knew for certain, whether 'twould hurt the brood to throw all that mass of honey around and among it out, that the queen might further extend her domain?

The truth is we are afraid of Adair; for years back he has made at times such tremenduous jumps at conclusions that we dare not trust him, aud in fact true to nature he makes one in his article above before finishing viz:

His queen without wings produced offspring also wingless during the first generation. Darwin in his works protests that a million of years would be far too short a time for such and such results, but our friend would have accidents to the mother producing wingless workers in six short years or less? We have workers iu six short years or less? We have all seen wingless workers of conrse, but an examination of the combs, not the queen, usually

solves the difficulty.

In regard to the two story hives and promiseuous changing of the combs, we have no doubt but that our friend Is in the right and we heartily thank him for his suggestions. We have more than once noted the disorganization of a colony by spreading combs too fast, and also the shock that was given them when giving them the whole upper story at once, especially if cool weather intervened. Rest assured friend Adair that however severely we may criticise, we shall never forget the valuable hints you have thrown out here and there, and shall certainly never think of calling you the harsh names you acense us of having used. In concluding we will say that we have a way of measuring a Bee-keeper by the tons of honey he has produced, and number of colonies he can manage successfully. Nothing else will do as a substitute, and we are as well aware as any one else that our place is not very high up on the ladder, but we hope "we're

#### Humbugs and Swindles Pertaining to Bee Culture.

[We respectfully sollelt the aid of our friends in conducting this department, and would consider it a favor to have them send us all circulars that have a deceptive appearance. Tho greatest care will be at all times maintained to prevent injustice being done

T seems at present that our old friend N. C. Mitchell, is most active in this field, and although we have already devoted considerable space toward "helping his projects along," we think it best to "stand by him" still further.

His new field seems to be scattering circulars and asking various P. M's. to assist him

in getting "Agents."

We give below, one selected from the bundle, with notes in parentheses from our facetious correspondent who forwarded this; said lot found its way into his hands from the P. M. to whom Mr. M. had written a "pathetie" postal We copy the spelling, punetnation etc. card. verbatlın.

#### SPECIAL TERMS TO AGENTS.

Having opened up a QUEEN BREEDING APIARY in the South, we are now prepared to furnish Early Queens and Bees for the Northern Market, and havlng made arrangments to raise the coming season,

5,000 Italian Queen Bees. 5,000 Nucle Colonies. 1,000 Full Colonles.

5,000 Nicite Colonies.

1,000 Field Colonies.

To seil all these, we will have to have a host of Agents, and to get them we have determined to put priese down to agents so low that any one can take hold of it and get one full colony of Italian Bees for nothing. We will send every thing named for fifteen in our large circular for five dollars and for two dollars extra will send one pure Italian Queen Bees, ("one bees") or for five dollars extra. Ten dollars in all will send one four full sized frame Nucle Colony of Italian Bees with Bees enough to soon make a full Colony, or for ten dollars exira, affect dollars in all, we will send one full Colony of Italian Bees. Everything named will be shipped at once ("that must be the "Nucle") except the Bees and Queens. They will be sent the first of May from our Apalarys at Indianapolis, Ind., or Cincinnati, Ohlo. Remember this offer is to Agents only and will remain open only to the first of February, 1874, after which the prices will be as before advertised. We will say that Agents who will devole their whole time, can make 300 or \$500 per month and local Agents can make from \$100 to \$500 annally and loose but little or no time taking orders for us. Send at once and secure any Agency.

Address,

Address, N. C. MITCHELL, Indianapolis, Ind., or Cincinnati, Ohio.

Now If Mr. M. really is going to have 5000 Queens and 5000 "Nucles" (whatever the latter may be) we will help him sell them with all pleasure providing he will first pay up old scores and send the queens already paid for and so long promised.

We are sorry to say reports do not show favorably of his business transactious; a sub-

seriber just now writes:
"A Westmoreland Co., Pa. man told me that N. C.
Michell had sold five receipts for \$50 in one day in his

And again on sending the name of a new

subscriber:

"He has made more out of bees than any man in the county he lives h, he uses the old box hive but got 25 Queens from me. He lately purchased a \$10 receipt of N.-C. Michell. I wrote him that I thought Gleanlugs would be worth as much as the receipt.

I am not sure but he ought to have a back No. of Gleanings would be worth as much as the receipt.

A nother in sending us one of the authorized that I have a back No.

Another in sending us one of the numerous letters which Mr. M. is sending to all parts of

the country claiming he could teach any son to take from a good colony of bees from one to three hundred dollars worth of honey anunally, closes as follows:

"I enclose a letter which speaks for Itself. It was handed to me by a friend. Such nonsense should be exposed, although I am sorry for Mitchell, as I learn that he is in rather poor circumstances."

We too are sorry for the man, and more sorry that he does not seruple to take modey from his fellow men without reudering any, or any just equivalent. We sineerely hope that he, and every other man or woman may learn that getting money by other means than fair, honest days works of either hand or brain, is sure to react sooner or later.

"Bee Charms," "Pateut Hives," and the like have almost eeased to east an odium over our innocent branch of industry, and all that is needed more is the strong voice of the people to declare we will have all valuable luformation free, and we will put down at once all attempts to beguile money from the honest, and unsuspecting, by the smooth tougued skill of designing hypocrites.

A subscriber asks If It were not proper to eonsider advertisements of Queens fertilized in confinement, as humbugs and swindles. the matter rests now, we should without hes-Itation decide in the affirmative. If there exlsts a bee-keeper who can succeed in the operation, we invite him to come forward and give a public exhibition of it to the people, for nothing short can be received as evidence; we will answer that enough can be raised to pay all trouble and expense.

More than one of our number in counting the time wasted in useless experiments to say nothing of the mouey, may be considered exeusable in feeling Indignant, and our friends in Gernany we have learned by private advices, have had their share of humilating disappointment. The matter seems to have been dropped by universal consent during the past season and we cannot help wondering if the very ones who gave the matter so positively a short time ago, are not beginning to think now they were mistaken. The fact that Mitchell even now advertises instructions in the matter is anythlug but flattering to-the euterprise.

[For Gleanings.]

#### CAN BEE-KEEPERS AGREE ON A STAND-ARD FRAME?

FROM E. GALLUP.

D GLEANINGS that If I were going to commence GLEANINGS that If I were going to commence anew I should prefer about the size of the Adalr Frame, [not the Adair SECTION by any means.] For a rapid increase of stock, queen raising etc. the small size cannot be beat but when we come to other considerations we certainly should prefer a medium between the two extremes, and it certainly seems to me that the extremels's ought to be willing to meet half way and recommend all new beginners to adopt a medium and uniform size of frame. I would like to see this introduced as a resolution at our next National Convention, and adopted. Of course such a resolution would not compet us old fogles to after the size or style of the hives we already have. Still I think that I can see a great advantage that would result if all Bec-keepers used a uniform size and style of frame.

Many thanks friend G. for giving us the aid of your judgment on a matter that needs it sorely. Of course it is not necessary that we should all change our present frames but if the veterans could agree on one frame as being advisable as a standard, what a "glorious help"

all around 'twould be.

We feel sure a brisk trade is soon to spring up in empty combs, if they can only be pur-chased with the full assurance of fitting incely in our hives, and this can only be done by having all uniform.

As we were unable to interest any oue in the matter, we got up the diagram on our price list from what facts we could gather hoping it might attract enough attention to enable us to set the matter right, If we were in error.

Considerable discussion has been drawu out on the amount of space that should be given between the lilve and frame and also on the length of the projection for hanging the frame on the rabbet. We would suggest 34 inch for the latter and 38 inch on the former; as it is almost impossible to get the space so exact that we shall not vary more than 1/8, we would suggest that the workmanship should never allow the space to be less than  $\frac{1}{2}$  nor greater than  $\frac{1}{2}$  inch. We rather prefer the latter to be sure that no bees are even squeezed; and we have no trouble with bits of comb built when the extractor is used as frequenty as it should be; we would also have a full half inch between the bottom bar and bottom board.

Auother point must be considered but we dislike to do lt, because it may be received by some unkindly, but as we feel sure the mass of houcy raisers will agree with us, we will try, 'tls this: That any method of supporting frames in the hive, as yet before the public, except suspcusion, has been proved to be utterly out of the question under consideration, as are also frames with closed tops, bottoms, or ends.

However, we shall be most happy to hear from the advocates of any of the above, and will promise to give any facts or evidence furnished, a most careful consideration. The replies we have received to Prob. 4th, Vol 1st. have given us a pretty fair view of the general decision in regard to frames.

#### PHOTO'S OF APIARIES.

I. ROOT & CO:—Enclosed find \$1.00 for the GLEANINGS and Photo. I am sending mino, which was made before your articles "How to start an Aplary" came out, or I should have followed your directions. By looking close you'll see a few Simplicities, among the hives. I mean to test them the coming summer and report.

F. H. HARKINS, Home, Minn.

Could our readers all see the view spread before us on the small card we feel sure all would nuite in saying "Our hearty thanks, Mr. H." As we can't pass it around to all, we'll try and tell what we can see with the

aid of a magnifier.

About 100 hives are scattered over a level field with an octagonal Houcy-house in their midst, and a pleasant looking wood for a background. In the fore-ground stands our friend, as we suppose, in his shirt sleeves and his three boys are assisting. We are sorry we can't discover any girls or women about, for an apiary in our opinion is incomplete without them; has our friend no daughters as well, and does'nt Mrs. H. take to bees? There certainly is no danger, for one of the juveniles is barefooted, and we are much pleased to see

that, although hives are open, the Extractor going, and H. himself "uncapping," nothing in the shape of Bee-vells is used at all by any one, and a little "cub" that we would like to pinch stands beside an open hive as happy and unconcerned as If he never heard that bees could stlug. The hives look precisely like the Langstroth hives we use, and the Simplicities too, but why does he tip up the latter? One beauty of them is that they can always be kept perfectly level.

With all those hives full of bees it seems that the Peabody machine would never keep up, and again the youth filling jars with a quart cup should let some of the girls do that, and the whole machinery should be arranged and the whole machinery should be arranged so that the honcy will straiu and run itself into the jars without even stopping until 'tis "dinner time" or something else "funny" happens. We would'nt turn those fine looking boys ont of the apiary by any means, for they are needed to carry combs so that "Papa" can as he removes them, carefully study the condition and needs of each stock, while "Katic" or some feminine "P. G." attends to the uncapping and extracting machinery.

If the whole lot of hives should "take a notion" to yield 5 or 10 lbs. each dally, quite a number of little folks might be found vastly

useful.

By the way, we should be pleased to exchange Photo. of our Apiary for that of the Aplary of any of our friends. We want to get up a large "three banded" Album.

# Heads of Grain, FROM DIFFERENT FIELDS.

LEASE bear with me if I relate a lit tlo of our bee experience which has-

the of our bee experience which hasbeen a good deal disheartening, many has been the time this summer that both Husband and I have wished we had let bees alone, but there was no backing out now, without quite a loss which we could ill afford. Two years ago this winter we brought home one swarm of bees, the next summer they swarmed twice and gavo us about three dollars surplus, one of the swarms filled the hive of 2000 cuble inches, box hives, clear to the bottom, so we thought we would do as some of our neighbors did, pry off the top and take out some of the honey, we inquired of half a dozen or more of our neighbor bee keepers if it would do any harm, they could not see that it would, so one hot day in Aug. or Sept. we went to work, but such a muss as we got into—bees honey and all squashed down together, it set us thinking if there was not a better way; so last winter or fall we borrowed some bee books, bought some, and sent for some papers and during the last year we have learned something. We had a stocks in the spring and increased to 27 but have had to feed and nurse them all summer.

summer.

We had a fine prospect for buckwheat harvest but an early frost killed it, the bees had scarce any stores in their hives, and we began to feed near the first of July (just enough to keep them) from \$\frac{1}{2}\$ to \$\frac{1}{2}\$ teach dully, in the evening; as soon as the frost killed the flowers we fed for winter stores, in all wo fed about three barrels, \$30.00 worth of \$\Lambda\$ sugar, made into a syrup. For their full feed, we put into three quarts of the syrup one teaspoonful of cream of tartar and 'tis nearly all scaled up nicely now; \$\textit{We think they are in pretty good condition, each hive having from 25 to 35 or 40 lbs.

Husband wishes me to ask how you manage to get your bees to take down the syrup so fast? [wo rend your article in the A. B. J.] Our bees were ten days or more taking down their winter stores, we

nsed a quart oyster can, one of the fall ones with a corn cob and some lille sticks in them and on the outside, it is a real tedious job the way we had to feed our bees.

Mrs. S. J. W. AXTELL,
Roseville, Warren Co., this Nov. 22nd, 1873.

Our Frieuds certainly deserve success after

the disconragements they have met with, and we have no doubt but they will be prepared to give us un enconruging report next season. With the sugar stores they have so bountifully supplied them we should consider their chances for safe wintering almost a certainty.

DEAR NOVICE: On page 5 of No. 1, Vol. II. of GLEANINGS I lind a very proper expression, which deserves mentioning. Sometime ago we were taught to measure bees by the quart, by brother Hosmer. This has done a great deal of mischief. All of my friends and myself inclinded, understood a quart of the base to be a reary mail agreement. This has done a great deal of miscinet. All of my frieuds and myself inclinded, inderstood a quart of bees to be a very small swarm. One of my zealons friends reduced his swarms to a quart by shaking the superfinous bees on the snow. The large number of bees in the hives was what had rained his bees in winters before this. Now he had it, but alas! that winter, my friend lost almost all he had. I had supposed that and told my friend so when I learned what he had done. Now, we understand a quart of bees to be a good strong swarm, that is, what we call a good strong swarm in whiter. I don't blame brother Hosmer; no doubt he knew what he meant, but the expression "a quart of bees" was very unbappy indeed. Now, answering Mr. Palterson's questions who asks how many combs should be covered by a colony in October to enable them to whiter, you say! "If you do not see bees clustered in at least three spaces during a cool day you had better not undertake to winfing a cool day you had better not undertake to winfing a cool day you had better not undertake to winfing it. If they can be seen in four spaces call them fair; live spaces good, six spaces fine, seven tip top, "etc.

Tids is perfectly plain and cannot be misunderstood.

tip top, 9 etc.
This is perfectly plain and cannot be misundershood
by anybody. I therefore move that all quart measures
be abolished when speaking about our bees hence-

CHARLES F. MUTH, Cincinnati, O.

I am wintering 3 swarms of bees on box honey one year old, the bees in like condition as near us possible to hist whiter, to find out if I can whether it was boney or season that caused desiruction among my bees one year ago.
THOMAS PIERSON, Ghent, Obio.

Give us the result by all means friend P. such experiments are worth more than whole colunms of theory.

Mr. N. what am 1 to do, in looking over my bees in the middle of Dec. I found they were getting in a bad condition, the coubs were wel and mouldy. I went to work as per GLEANINGS and made each hive a quilt, I put them on 100 of frames over the bees and put the honey bourd over them, the honey bourds have three yeutlator holes in them, have I done right? I have been in a room in the lower the towards have and the towards and the lower than the contraction. them in a room in the house, the temperature ranges from 31° to 56° so far. I am keeping a diary of the temperature in the room from the first of Jan.; the fourth of Jan. was a warm day. I carried most of them out, they had a good tly, carried them back at night and so they received. so they remain.

so they remain.

I have a small room I am keeping a light stock of bees in for experiment and feeding them all they will lake of sugar symp, the temperature ranges from 40° to 70° do you think they will increase in strength before spring? They are very lively now, I have a cage for them right against the wholow so they can exercise themselves when they choose. I have no trouble with them going back in the hive.

Would it maswer at the time when we use the extractor to move the bives and bees say 50 feet from their stand?

their stand?

M. RICHARDSON, Port Colborne, Canada Don't put a honey-board over the quilt by any means. At a temperature of 50° we should prefer removing even the quilt if the bees were kept in by wire-cloth. We are very glad to hear you have succeeded in letting the bees fly in doors, tell us how the colony turns out by all means, as we have told friend Pierson just before you. Your plan for extracting we think would not do; you would get the young bees lost and possibly the Queen.

I have extracted 18 gallons this month, warmed the room to about 85° had no trouble extracting; have put up a few jars, flud them full of particles of wax, is there any way to get rid of it? give me what Information you can and much oblige.

Jan. 23rd, 187t.

Waterfown, Wis.

If you use a strainer of cheese cloth, such as we described in Vol. 1, attached to your extractor, you will have no such trouble. Heatlug honey to the bolllug point injures the sale of it by darkening the color, but the honey may be evaporated to any desired consistency, even to caudy, in a slow oven without injury,

I cannot agree with J. Bolin as to cold killing bees; in the winter of '71-'72 I wintered a stock in a 3-8 pine nail keg, very open, which stood on the west side, of a shed some three feet off the ground so as to get all the benefit of all the cold winter blasts; they came out all right in the spring.

We have many such reports which it seems to us Mr. Quinby too, would do well to consider in renderlug his decisions. Our friend goes on to attribute the cause to dampuess from frost etc. but we have many severe cases of it where they were kept in dry cellars that did not freeze at all. He adds further:

did not freeze at all. He mans mither:

I dag a hole and put one in, put boards over it and piled on straw, fed it all winter on sugar-syrup, and my experience was, and I examined them every time it was warm, that if there came a thaw hasting some days, but not so bees could fly, they would commence to soil their frames; if they could fly it would cease.

Ed. Wellington, Kiverion, Iowa.

Just us we should expect, for syrup fed in

cold weather unless days occur that the bees can fly, invariably produces dysentery or something much like it; as we have said repeatedly, it must be sealed up in warm weather

Scaled honey, however often produces the most aggravated cases. We, should have preferred to have the bees out of the hole, and in the sun.

#### CONCERNING PROBLEM NO. 19.

RIEND NOVICE;—I have been letting a few of my bees by according to the following plan.

Muke a light frame about two feet square, anker a light traine about two feet square, cover the four sides with wire-cloth and the top with thin boards except a square hole in the center, about as large as the inside of the live; place a swarm of bees on this cage in a warm room and let them lly. Do you think it will be an injury to the bees? Jan. 5th, 1874. HENRY PALMER, Hart, Mich.

Au appeal for further particulars brought the following:

The bees do get back into the cluster all right. all those examined since their flight, have brood; they had none before, Jun. 10th, 1871. II. P.

It seems the above must answer the purpose. It might prove an injury to a strong colony to start brood-rearing in Jan., but we think it would certainly prove advantageous to a weak one, providing they could have warm quarters in which to mature their brood.

Our own experimental colony after losing quite a unmber of their force in the wire-cloth house experiment, survived but a short time after a second reduction of their numbers, caused by earelessly shutting down the wirecloth cover to their lilve. Of course they flew to the windows and us it was just about the first of the year, in our hurry they were not noticed until 'twas too Inte.

With the Simplicity hive we think flying room could be given in extra stories placed elther above or below with wire-cloth, to admit light and to prevent them from gettlug

out and lost.

# OUR. "Latest Intelligence" CORNER

Questions not too lengthy, may be answered through this department even if not received until within two days, of the first of the month; and in two days more, nothing preventing, you may have your paper centalning the reply. If our friends would use a separate, piece of paper for this, and in fact for each of the departments, and write on one side only t'would be quite a favor, but if It's too much trouble, don't do it, for we want to hear from you my way. want to hear from you my way.

## JANUARY 29TH, 1878.

It's just II o'clock & we've a fine wind for the "Print" Where's Adalr's Annals for December?

Mrs. Tupper's Journal reached us Jan. 23rd, and as asnai, contains much of value.

J. L. Wolfenden, Adams, Wls. writes: "Tell that man he can take the propolls off his quilts by poundlng and rubblng them briskly in the open air on a cold day, I can clean one, so that It is just about as good as new in ten minntes."

King's Magazine for Fcb. made its appearance on the 27th. Wonder If they don't get up before daylight? We are informed they have engaged the services of Mr. Quinby for this year, who will doubtless add much to the value of their Journal.

"Why don't 'Novice' attach a 'Governor' to his 'whidall' power fer his 'Print' and make her run klnd of sober and steady? It eau be dono surely," writes a piensant friend from Pa. As to whether "she" has become any more "steady" in her habits our friend can judge by the appearance of the present. No.

Bee World for Jan. made Its appearance on the 27th, it numbers among its contributors some of our best Aplarists, and as Mr. Moon promises to make it the expenent of our Southern Bee-keepers, we would kindly suggest to him the propriety of being more careful of punctuntion, spelling and "dictionary;" they may feel that they are not fairly represented before, or in, the World. Monthly, \$2.00, Rome, Ga.

P. S.—Mr. Moon's attempts at Journalism have heretoforo been so short lived, that we must for the present decline adding the World to our list of Beo Culture Periodicals.

A. B. J. for Jan. made its appearance on the 16th, In a beantiful new dress and with a clear bright typegraphy that we novices in the "art preservative," could only resolve to try to equal.

Although most of the matter is as usual, valuable, we cannot help remonstrating against the publication of such articles as the foreign one entitled "Italian Bees,-Their Worthlessness."

Where one man stubbornly sets himself up in opposlition to the testimenty of hundreds, we might almost say thousands, we have found it generally the ease, that he does so with a vlow of gaining popularity thereby, or nttracting attention by his eccentricity. They only do mischlef by leading astray beginners and outsiders, for those of my practical experience with the Italians regard such an article, as they would one recommending us to discard horses and use ox teams instead. Both sides to a question is all very weil, but 'twonld be folly now to go ever ground so well established years ago.

We know of but one man now on this side of the Atlantic who would be likely to take that side of the subject, and he has too much good sense to persist in It long if he be let alone.

Ir there is a probability of agreeing on a standard frame, can we not have also a standard lilve?

We have just filled an order for one as follows; From a board 14% lnches wide, ent pleees 45 lnches long, two for each lilve; straiten one edge of each and their cut them square in two so as to make a slde and end from each respectively 15 3-8, and 30 inches. Rabbet the ends of slde pleces 3-8 by %, and then cut off on a bevel frem both sides and ends, strips 1% wide, these are to go around the cover. Also bevel the lower edges of the body pleces at the same time they are trimmed to an equal width, and then rabbet the upper edge of all side pieces 1 by 3-8 for a place to hold the frames, and the body is rendy to nail. For a cover, cut from a board 16 3-8 inches wide, pieces just length of side-pieces viz: 30 luches: rabbet % by 3-8 clear around and nall in aforementloned strips. See "Hilves, to make," Vol. I. for more explicit directions. Hingo the cover as you like, and make a bottom-board in the same way or nall on a permanent one, for as this lilve holds 20 Adair frames it will probably never be used two-story. The principal objection to it is, being obliged to carry the whole into whiter quarters; but if only just as much honey can be secured with it, we don't see but we had best make broader shelves and get some one to had best make broader shelves and get some one to help "lng 'cm ln," for thoy will be so much handler for extracting, and our surplus comb can niwnys be kept right at hand. What do our people say to trying to see how near we can all agree on a STANDAID HIVE AND FILAME. As Gallup has given us his opinion ou a frame, will lie be so kind as to say as much for a hivo tor it?

Directions for making Buzz-saws to be run by foot power, with diagram of top of table will be given next month.

#### \$1.00 Queens.

ID your queens hatched by artifical heat become fertilized? If so and from mothers of undoubted purity I should think they would be very desipurity I should think they would be very desirable, as of course there was much less probability of their meeting black drones than those hatelied naturally. In one of your recent articles you speak of a fitty tour cage queen nursery. Are they of different sizes? the only one I remember seeing advertised is Mr. Davis's for \$5.00. How early do you think queens could be safely sent from your uplary? Our bees here commence swarming so early that it would be almost impossible to get them here by that time.

Anna Saunders,

Woodville, Miss. Dec. 12th, 1873.

Woodville, Mlss. Dec. 12th, 1873.

All Queens (except some lost of course) hatched by artificial heat became fertilized exeept three or four that were hatched too late to enable them to fly out. By keeping Italian drones in queenless stocks, or by eausing them to be reared late by excessive feeding, we can most assuredly secure greater probabilities of having them purely fertilized. We may remark here that 'tis quite a difficult matter to Induce drone rearing out of seasou; we have ouly succeeded once in so doing and that was in Oct. 1872, when we gave one colony a whole barrel of syrup at once, arranged on the plan of the "tea-kettle feeder," glving the combs to other colonies as fast as they were filled and sealed. A host of droues were reared and their queen which was an old one, was superseded; the young one becoming fertilized and proving herself one of our best this season.

In regard to nurserles: We used one of Jewel Davis's patented ones, side by side with one of our own make the past season, the latter proving much the lightest, and most economical of the animal heat of the hive, although the aetnal cost did not exceed two dollars. Either of these had to be lifted out of the lilve to make an examination, and to Insert or take out cells or queens, some of the little doors had to be opened; mischievous young bees had to be got out or in etc.; but with the 54 eage nursery we had no bees in the way at all, and a simple rolling back of the cloth opened every eell or queen to view at once. Now it would almost seem that this latter arrangement should satisfy every one, but in all these nurseries we are at the merey and eaprice of the weather and the ontside cells would many times fail to hatch. Artificial heat we found a perfect remedy, and large yellow queens such as are ordinarily never seen only during our warmest summer weather became the rule, and poorly sized or colored ones the exception,

Are we not right in considering the latter plan in connection with our discovery that queens just hatched could be "let loose" any where, far in advance of any of the nurseries?

Now Miss, or Mrs. Anna, instead of telling you how soon we can rear queens In Ohio, we would most earnestly urge that you should lend a hand. With the great advantages of your southern clime yon should be able to rear a thousand queens in a season, which we should consider a very falr income for a lady to secure, especially as it may be done all at her own home. We think we can send you customers without charge for all you can produce. Somebody in the southern states must rear queens, we don't see how we can get along otherwise.

We presume it will not be safe to ealculate on queens in our locality much before June 1st, although we are going to try hard to "steal a march" on the weather. In answer to a great number of inquiries as to how soon we can furnish from one to a dozen, we shall have to say we can only promise to let you know when they are ready. We book orders with or without the money but the former always have the preference, and none will be shipped until

paid for.

I shall still continue to raise dollar queens. so may put me down in your list, I want to raise 500 a least and will more if I can. I E Daniels, Lodi, Ohio.

I will undertake to rear queens for \$1.00, under the conditions you name. Dr. J. P. H. Brown. Angusta, Ga.

Glad to add your names to our list. Several have asked if we could sell 50 or 100 at one time, any cheaper. We should say no, not even 1000. We will give a list of the "Volunteers" in the "cause" when the season opens.

## HONEY COLUMN.

HAVE 1000 lbs. of extracted honey that I would like to sell at 20c. R. WILKIN, Cadiz, O.

We clip the following from an article from "E. A." in the Cincinnati Commercial.

A little time ago my friends the Quintness bought some honey. The grocer had two kinds of honey—strained honey sealed up in a bottle, and honey in the comb. In a little square wooden frame, just as the bees made it. [The bees never saw the other.] With visions of the delicions strained honey of his graudmother's time before his eyes, Quintns bought a bottle of the stuff called strained honey, and carried it home rejoicing. The grocer warranted it to be pure strain-

ed honcy. The Quintuses proceeded to unbottle itand pour it over the morning buckwheat cakes—so
delightful, you know, buckwheat cakes and honey,
nothing's like 'em. Alas for the honeyed hopes of
lumanity! Quintus' strained honey was sweetened
water. Quintus had paid forty cents per pound for
witer. Maybe water'll be worth that much before
the new Water-works are bullt, but it's nothing like
so ligh as that now. Quintus tried it again. He
wouldn't give it up. The second time he bought the
comb honey, in the little wooden frame. This sort of
honey, comb and all, was worth fifty cents per pound.
Quintus was surprised at that. The groeer had assured him that the strained honey was the simon-pure
article. Now, if that was pure honey, how on earth
could the bee-keeper alford the labor of crushing the
comb, straining it out, buying the cork and bottle,
putting the honey into the bottle, and sealing it up,
and then sell it ten cents per pound cheaper than he
sold it before he took it out of the comb. Quintus has
been studying the problem ever since, and he can't
get it through his head yet. He hereby submits the
question to all groeers and bee-keepers for their consideration. Quintus bought the little frame of honey,
though. The groeer weighed it to see how much
honey there was. He put a large piece of heavy
brown paper upon the scales first; then he wrapped
the frame of honey up in a quantity of other paper;
then he weighed the whole together—paper, pine
frame and houey. It weighed a pound and a half, if
I am not mistaken. The grocer said there was a
pound and a half of honey. Thus he sold brown paper and pine wood at the rate of lifty cents per pound.
Quintus has noticed since, and he finds that his grocer sells all his brown paper in much the same way.
Quintus thinks of setting up in the grocery line and
selling brown paper at fifty cents per pound.
Cannot some one set "E. A." on her feet
with her face turned in the right direction?

Cannot some one set "E. A." on her feet with her face turned in the right direction? She evidently "means well." If she will give us her address we'll send her a jar of "strained" honey, equal to "grandmother's."

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#### OTED EXCLUSIVELY TO BEES AND HONEY.

Vol. II.

MARCH 1, 1874.

No. III

#### HOW TO CONDUCT AN APIARY.

No. 3.

S" order is heavens first law" we trust we shall be excused for considering that the first work to be done in March is to put the Apiary in complete order. Even before the bees are removed from their winter quarters we would insist that all rubbish of every deseription be cleaned up, if any has collected during the winter, and to avoid the unpleasantness of walking about in the soft ground we would the first thing, get a load or two of clean sawdust and make paths of it, to where each hive is to stand, and a good broad one to

your own door.

As soon as the bees are in their places we shall expect you to see to every hive dally, and we appeal to the lady of the house if it is not too much to tolerate having muddy feet constantly coming ln, to say nothing of the lujury to your own health, from standing in the mud or wet ground and grass, if you should happen to make a prolonged stay at something unusual about some of the hives; besides wherever "Papa" or "sister" or "Auntie" goes, of course the little ones will want to go too, in fact should go, and we want to make it a pleasant place for all. When we first took possession of our present apiary so many of the bees got drowned during their first flight in the spring in puddles and standing water, that we got exasperated and In spite of frost and snowy weather we went at it bodily and cut under-drains 30 inches deep across the whole piece every two rods, and then as no tile were procurable right off, we sawed up pine dry goods boxes and covered the drains with short boards lald crosswise, then filled them up. That was eight years ago this spring and there has never been any standing water since, about our aplary.

A pine half barrel let in the ground at a place where several of the drains meet, affords a view at all times of the working of them, and they have never failed to take away all surplus

water.

We presume the success of our Concords depends somewhat on these same underdrains, and by the way these grape vines should be pruned, by cutting all shoots down within two buds of the horizontal arms, as soon as this reaches our readers if it has not been done before. The proper time for pruning varies with different localities, but it should be done soon enough to prevent bleeding if possible, but prune them any way, for of all untidiness, a

grape vine sprawling about the ground or making a brushheap of Itself In an apiary is the most lamentable. Your success pecuniarily absolutely depends on keeping every thing trimmed up neatly; and while we think of it perhaps you had better make your sawdust paths first, then you can work around the

vines and bees with pleasure.

We believe we never enjoyed ourselves better than when we had a wheelbarrow full of sawdust, the article being just scarce enough here to make it precious, and our "better half's" dust pan, (that was before the apiary could afford one of its own) with which we sprinkled just enough in the mud to make a clean footing, then rolled our barrow along and built a little further until we had white streets along beside and in front of the hives, that so captivated the children, they were ready to scream with delight, when told they were expected to get the fire shovels and rnn over the paths and pat the sawdust down until all was smooth and hard; stepping off into the mud subjects them to the penalty of being chased by "Papa's' wheelbarrow.

Weak colonies and In fact all of them should be well protected by Quilts, and if each colony can have two or three 'twill not be amiss in the spring. See that there is no crack nor creviee where the warm air from the cluster can escape, and keep the entrance so small that the bees can just pass out and in. As the frost is leaving the ground the stands will have a tendency to thaw on the south side first and thus tip them out of true; but until we can decide upon some remedy, which seems not so easy, we can watch them and prop up one side

a little until the frost is out.

We hope a number of our readers will try the forcing plan given on another page, or will even try bedding a hive in the south side of a manure heap or one extemporized for the purpose. We can at least thus at small expense try the effect of a raised temperature, with absolute protection from all frosts, on brood rearlng in the spring.

In regard to stimulative feeding in spring we really know of no better way than the "dry sugar" given last month; when the weather is such they cannot fly, turn up one corner of their quilt gently in the evening, and pour a

few spoonfuls on the cluster.

Tis true by cutting a hole through the quilt and covering it with wire cloth, we might do it a little handier, or we might use a variety of feeders but we dislike having so many traps around or having so many quilts with holes cut through them,

"P. G." has a plan of her own for feeding that has been quite successful, as follows: She makes an oblong bag of stout cotton and covcrs its mouth by sewing in a piece of course wire cloth, perhaps 1) by 10 inches. This is placed between two combs moved slightly apart, near the cluster, and is filled by pouring the syrup through the wire cloth when the quilt is turned back slightly; the wire cloth holds the mouth of the bag open and prevents bees from getting into it. Whatever plan of feeding you propose in spring, do not do any thing that will allow the warm air to escape upward from the cluster.

#### ARTIFICIAL PASTURAGE.

The opening article in the A. B. J. for Feb. by Mr. Gallup, it seems to us strikes about at the root of the matter of raising plants or trees for bees. Almost every season the bees work on some plant that we had never noticed their visiting before; and with the exception of white clover we have had failures from all sources. Locust trees gave us such a crop in 1870, that we meditated planting an orchard of them; but we have had no honey of any account from them since, although they have been full of bloom; basswood has also been almost a failare for three years past in this locality; buckwheat is reported generally very uncertain, and the autumn flowers, unless in the vicinity of a large swamp seeem , equally unreliable. It would seem extremely doubtful whether it will pay to undertake to raise any plant exclusively for bees, and we would advise none to unbertake it unless they have ample means; and it should also be remembered that 'tis folly to expect much from any source unless there be at least an acre of it. 'Twere well to consider whether the same money instead of being expended in artificial pasturage had not better be used for the purchase of sugar, to feed, for in that ease you, are sure of the result, whether it be for queen-gearing, or for furnishing winter supplies.

Raising Rape for the seed, near an apiary might be a very profitable plan. but as yet, we have so far as we know, had no direct practical report of its value in this country. a small piece last season, and the grasshoppers ate off every leaf as soon as it appeared, but we propose trying it again this year. Alsike elover seems to be our only hope of any thing certain, and even here we have more reports of failures than positive success. If farmers could be induced to raise Alsike as they do red clover, there can be no question of its being a great benefit to beckeepers. It certainly must be profitable to raise it for seed, and we are surprised that the price is not only kept up but continues to rise. We were advised by our leading seedsmen to offer it in our circular at the same prices as last year, and the result has been that we have sold seed for 30c, that cost us 33c, because none of the new crop could be found in the market for a less price. If beckeepers can't make it pay to raise it for the houey, they certainly can for the seed, and as there is little danger of loss in the operation we should advise Alsike before every thing else, and while you are about It give it plenty of manure, and good culture, for lots of honey requires lots of plant

food, and we "Young Americas" when we undertake a thing, like to make it a success il 'tis a possible thing in spite of obstacles that may chance to arise. Those who have the brain, muscle and energy that commands success in whatever they undertake, are the ones we want for beekeepers. See friend Nevin's letter, page

# PROBLEM 19 COMPLETELY SOLVED IN A NOVEL MANNER.

THE following experiment seems to have hit the solution of Prob. 19 so direct, and pleases us so much that we mark our friend paid for five years on Gleanings. We pre-sume almost all of our readers are familiar with the construction of hot beds, and we think no possible harm can happen if this forcing process be undertaken as soon as this reaches you. Should you succeed in building a colony up to the "swarming pitch" by the first of April you will probably, if you keep them properly under control get a result in the way of honey, that will amply pay for a dozen hot beds and the attendant care.

the way of honey, that will amply pay for a dozen hot beds and the attendant care.

Onr Bees are in splendid condition so far, I was all through them on the 2ist, (Jan.) and in some I found three sheets with brood in, and in none did I tind more than a handful of dead bees. I feel as if we were safe for this time, and begin to look forward to our next honey season. My hives are all out of doors with straw mats on the combs, are dry and in fine order. I was somewhat surprised to hear you say that we could not have had the bee cholern in this section; why, some bee-keepers lost 60 and 70 hives, while others did not lose quite so many, for the simple reason they did not have them to lose, I am satisfied I would have lost all of mine last whiter if I had not given upward ventilation, some I saved by that means when a mere remnant were left to tell fhe tale, and by careful nursing in what might be called a "hot bed" got a good return from them in the way of honey and artificial swarms. My hot bed consisted in surrounding a hive with about six inches of mannre on the three sides and bottom, covering the tops with a quilt and mat and leaving the front open. It would have done you good to have seen how the Queen "spread herself;" I was a little atraid I might be too hot for them but I heard no complaints, and I save eggs deposited and hatched out of the cluster just as we do in summer; it eame out my best hive and returned me the most honey. I hope some others may try the same and give us the results.

H. E. Curry, 208 West 4th, St. Cin. O.

Later: An appeal for further particulars

Later: An appeal for further particulars

Later: An appeal for further particular-brought the following;
In reply to your inquiries I am sorry to say I did not keep a record of my experiments. I had no idea of succeeding as well as I did or I would have been more particular. I think however, it was the latter part of March, but last year was a strange year, one it would do to go by, if I remember we had very cold weather in April, even the blue birds were deceived. I thought of your lamp Queen Nirsery and of Patent Incubators; the heat in those are kept up by means of a lamp and hot water, if the hot bed is as successful as I think it is, it will do just as well and perhaps better. I must close by thanking you for your kind offer of a five years subscription, and can assure you ofter of a five years subscription, and can assure you it is appreciated, at the same time I could not think for a moment of abusing good pature in such a way, but as long as GLEANINGS is conducted in the manner it is, I shall take pride in supporting it.

#### THE STANDARD HIVE AND FRAME.

Nour hasty description of a hive for the proposed standard frame in our last, we made an error in length of cover that was not noticed until half the papers were worked off, and still more humiliating was it to discover after all were off, that we had given directions for cutting a side and end respectively, 30 and 15%

inches from a board forty five inches in length. We really hope our carelessness has annoyed no one, and would plead as an exense that the importance of the matter induced us to crowd it in hastily at the last minute. The 45 inches should read 46, and the cover 30 inches long.

That the matter is one of deep interest to many may be gathered from the following com-

munications.

numications.

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Our opinion is quite favorable to your plan. Those eight frame hives which we think will be plenty large enough for wintering, will also answer a very good purpose for starting colonies before they get so large as to demand a full hive. Will not a 30 inch hive instead of three feet, answer for the majority?

fall hive. Will not a 30 inch hive instead of three feet, answer for the majority?

Friend Novice:—Gleanings for Feb. ree'd about two hours ago, and among the many important subjects naticed is the Standard France question. I use a frame about the size of friend Gallinp's and like it on uring accounts better than larger frames, but if Beckeepers could be induced to agree on, and adopt a standard Frame, it would be of great benefit to all Bec-keepers and Manulacturers of hives also. My ideal frame would be a shallow one for summer, and a deep one for winter, and the only way I have thought of to combine the two distributes features, is to take the Langstroth or Quinby frame and use them horizontally for summer and perpendicularly for winter. I intend to experiment the coming spason with Quinby size, as that just lits my hive one way. I propose to set the hives on end soon as the basswood season is over, so as to give the bees time to arrange their brood and the late honey or sugar syrup, in the proper position for winter. I have always noticed that swarms with plenty of sealed honey immediately above the cluster, keep the most quiet and winter the best in every respect. The swarm spoken of on page 22 that wintered in a nail key so successfully, undoubtedly had picuty of sealed honey immediately above the cluster owing to the shape of the key; now lite same swarm hived in the same key, and kept in a horizontal position, with the same exposure, would have stood a sfim chance to winter.

This subject will bear a good deal of agitation, so let's hear from all. Yours for a Standard.

Mexico, N. Y.

P. S.—If you want any hives manufactured to ill orders from the Eastern States, I would like to make some arrangement with you that would be satisfactory to both. I can make them "with knot holes or without."

Reports of late years seem to favor hives

Reports of late years seem to favor hives with a depth of frame from 9 to 10 inches, for wintering, rather than taller ones, and we are not sure the keg would not have wintered

equally well on its side.

Mr.Qninby gave the plan several years ago, in the Agriculturist, of standing frame hives on end in winter, but we believe few practiced it. Bees ln winter seem disposed to cluster at the top of the hive whatever may be its shape, and a hive rather shallow with a *close tight* quilt over the frames seems to afford them the best facilities, for brood-rearing.

#### ON THE SIZE OF THE FRAME.

DEAR NOVICE:-I have been very much surprised

Deau Novice:—I have been very much surprised in seeing in your circular, that if you were to choose among the different frames used in this country, you would give the preference to Langstroth, then to Adair, then to American, and after these three, to Quinby.

This operation does not seem consistent with what you have writ en, on the American hive, in the A. B. J. for June 1872, page 274 where you say the bees raise more brood in the shallow, than in the high rames.

Beside, if you like the L. frames because they have 17% inches in length, how is it you do not like the Q. frames? Is it because they are % longer? If you do not like the Q. frames because they are % longer? If you do not like the Q. frames because they are % longer? If you do not like the Q. frames because they are % which is of the same size, and the American, which is even 13, inches higher?

Before pronouncing your judgment did you try all

the same size, and the American, which is of the same size, and the American, which is even 1½ inches higher?

Before pranouncing your judgment did you try all these shapes of frames? If so, you have obtained results very different from what I have experienced.

For ten years I have used both sizes, Quinhy and American; and after a trial carefully made, I concurded, three years ago, not to augment any more the anumber of my fives with square frames, 12 by 12, and to make only Quinby hives accordingly, I have since peopled a second aniary, six miles from my residence, with Quinby hives exclusively. To day, in my home apiary, you will find more than one hundred Quinby hives, ready to receive my swarms, and not one square frame hive newly constructed.

For six or seven years, I have tested the faying ability of my Italian Queens. For that purpose att my hives, destined to produce honey, have been made with a capacity for eleven Quinby frames, or if American, sixteen. Last season I had here eighty stands, which I intended for gathering honey; about forty of each kind, besides my hives destined to make swarms and raise queens. By the lirst of June three of my Quinby hives had befueen seventy and seventy live thousand cells coatalming brood; while the best of my Americans had about ten thousand cells of proline queens, the same pasture and the same care.

Besides, eight Quinby frames have a greater area than ien Laugstroth, or eleven Adair, and are usually equal to twelve American. Do you not think that the work is more quickly done with 8, than with 10 or even 12 frames in the hive?

The area of comb filled with brood In the frame is atways in spring like a sphere flathened at the bottom part. The bees, in spring, experience some hesitation

The area of comb filled with brood in the frame is always in spring like a sphere flattened at the bottom part. The bees, in spring, experience some hesitation to lengthen the brood nest, at the bottom; because the bottom of the comb is always colder than the sides. Hence the queen finds always more cells, warmed and ready to receive her eggs, at the sides, than at the lower part of the comb.

Lastly, it takes more bees to surround and warm 12 trames than 8, for instance, the compass of a Quinby frame measures 53% inches, and for 8 frames 476 inches, while the 12 American frames measure 576 inches, and it takes 15 per cent more of bees to protect the same quantity of brood, and in the Langstroth hive 10 per cent more than in the Quinby. To conclude: I cannot admit, without protest, y ur opinion, as to the measure of the frames, for, in my opinion, you are mistaken in your classification.

For the benefit of your readers, I will tell you how I have solved the problem of making nuclei, to raise queens, with my great Quinby Frames, dietsible at

I have contrived to make some frames, divisible at will in two equal parts, all my lives, destined to raise queens, receive some of these divisible trames. I have also some small hives, or nuclei, fit to receive these half frames, when I want to people one of these small hives. I take a frame contaming brood and honey; divide it in two parts and insert it in a small nucleus with part ino board-"Thus the Quinby live gives only one frame, while the nucleus gets two.

DADANT'S DIVISIBLE FRAME: NO PATENT.

When the two parts are united, the buckle A, of wire, of the frame with the tongue, enters in a button hole plerced at C; a small nail, easily removable, entering in the buckle at C, maintains the two parts together. The same device can as well lit the L. frames. I have used it at least eight years, with the best results.

Hamilton, His., Feb. 4th 1874. Ch. Dadant, Result in pages 25.

Reply on page 35.

# Gleanings in Bee Culture,

Published Monthly,

# A. I. ROOT & CO., EDITORS AND PROPRIETORS.

## MEDINA, OHIO.

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# MEDINA, MAR. 1, 1874

Mr. MUTH, sends us a sample honey Label in blue and gold with a Laugstroth Bee Hive thereon that is rather neater than any thing we have seen heretofore.

WE can furnish GLEANINGS with the A. B. J. for \$2, 25; with Mrs. Tupper's Journal, for the same; with Bee Keeper's Mag. \$1.50, or all four of the above for \$4.00. Terms, invariably eash in advance.

JUST as we feared, and its the Prairie Farmer that has copied from the A. B. J. the article on the Worth-lessness of the Italians.

They have our thanks however for the aid they have given toward establishing a Standard Frame, by giving our article on the subject.

In Mrs. Tupper's Journal for Dec. page 287 we read: "Three thousand and six hundred workers will fill a quart measure." By careful count we find One thousand nine hundred and eighty eight clean, dry dead bees fill a quart measure, and judging therefrom we think one thousand live Italians would have to be squeezed some to get into a quart measure; at our estimate of \$1.00 per quart, ten bees are worth just one cent, so you can see just how expensive 'tis to use a hive that smashes the little innocents.

E. Kretchmer & Co., Cobirg Iowa, write is they intend rearing 1000-81 Queens the coming season, all from Imported Queen mothers; also that they sell a five thoroughly painted for \$1.00, without frames, all of which would be pleasant news were it not that Mr. K's. Circular, like his book gives one a very unfavorable opinion of the mun. He seems now even more unscrupulous than of old, in copying the ideas of others as his own, and goes so far as to even make extracts in such a way as to entirely change and subvert the writers original meaning. In regard to his inisiness habits we know nothing further than that he does not scruple to receive money for "rights" to devices, knowing they are interrity worthiess. For the purpose intended.

Ir were no more than just to our correspondents to inform them, while thanking them for their favors, that it is atterly impossible to publish one fourth part of the good articles sent as for publication. For instnnce: we have now on hand at least a dozen on whntering, worthy of a place but matter of more importance at this season, demands we dismiss the subject again until fail. In one of our former circulars we offered to pay for new, vainable matter, and we do so yet, but it should be borno in mind that unless the writer has had the care of a considerable number of colonies, the chances are much against his article being considered one we can afford to pay for. No apology need ever be made for writing us on Bee-culture; tls our business to carefully read and weigh the contents of each letter. Questions of a general nature we

prefer to answer through these pages, all others with very few exceptions will receive prompt answers, to the best of our ability, by return mail. Where a subject has been discussed at length in the back numberswe cannot do more, than refer to such numbers-

Mu, King, in speaking of the decease of Agassiz remarks; "He repudiated the repuisive Darwinkin doctrine of development, with all the force of his impulsive nature," We hope we shall be excused for wondering if Mr. King too, has not read Darwin; it is not our province here to discuss his theory, but 'tis his due to state that Darwin's experiments with bees, to determine in what manner their combs are built (see Origin of speedes, page 216 to 224.) were perhaps more thorough, than any similar ones ever made by our modern bee-keepers. No Apiarist can full to see that every line of what he writes on bees was the result only of careful and patient observation.

It may be well to state here that we first saw the book after having written our criticism on Agasslz? "Life in the Bee Hive" in our June No. of last year; it was then handed us by a friend, remarking that our account of comb building strangely agreed with Darwin's observations on the subject.

How much of Agassk? Life in the Bee Hive was real observation, and how much guess work, Mr. K. knowsfull well. "Truth is mighty etc.," and should not be smothered, even out of respect to the memory of those departed.

We find to day, Feb. 9th, three more colonies dead. Two of them obviously died as did the two former ones, from lack of bees; the other presents to us a case not easy of solution. It had been one of our most active colonies of hybrids, and in fact the hive was christened the "Robber Chiel" on account of their propensity to bustle out all hunds at the faintest intimation of any such disturbance.

After their journey to the swamp, (they had been a populous two story hive) we found a large amount of dead bees on the bottom board, and a week or two later when they were fed, another heap of dead bees was brushed off; and on liftling them to go into winter quarters still another heap remained on the bottom board. An examination showed they had still kept dying until the last of them perished among clean combs of sealed sugar symp, no trace of dysentery, and the bees were dry and clean. We can think of nothing uniss unless the bees were too old, but this seems very unsatisfactory, for some brood was reared in the fall we feel sure, we cannot now recollect how much, nor how late. It hardly seems proper to call this a disease when the bees seem so perfectly healthy.

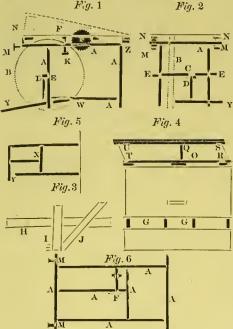
Mr. Wilklu and some others mention similar eases. All the rest of our coloules with a few exceptions seem to be wintering finely.

P. S.—We measured three quarts of dead bees although every dead bee was carefully removed from the hive when housed Nov. 22nd.

Feb. 16—We have just purchased two loads of coarse, fermenting manure at the livery stables; placed three hives on their summer stands with the entrances turned southward, directly under the grape whe trellisses; placed about 6 heches of manure under each, then protected the hives from being discolored etc., by standing cheap shingles all around them and on top, then covered the whole hive except the entrance at the south. As the hives are but 6 feet apart we make a whirow as it were of manure over each row whites. The Idea isto use manure enough to preven the hive being exposed to a freezing temperature at any time, on the plan of a mild hot bed. The simplicity hives again, show their great advantage over the others with their projections; but a very small amount compartitively, being needed to cover the former, both of shingles and manure.

#### HOW TO MAKE A FOOT POWER BUZZ-SAW, FOR MAKING HIVES,

HE following diagrams are drawn on a scale of ¼ inch to the foot; the same letters referring to the same parts in all.



A, A, A, etc. is the frame work made of hard wood 3 by 3 scantling, put together with mortises and tenons, and drawn up firmly with bolts. Fig. 1, is a front view; Fig. 2, a view from the end where the operator stands; Flg. 6, top frame work where the table top is raised up as in dotted lines in Fig. 1; Fig. 4, table top, and Fig. 5, treadle, The balance wheel B, seen in Figs. 1, and 2, should if possible be as much as 3 feet in diameter and weigh about 150 lbs; the shaft C, is made of a bar of square or round iron at least  $1\frac{1}{2}$  inches in diameter for the weight of balance given above. This shaft after the crank of 21/4 inches stroke is forged in at D, should measure about 11/2 feet, and con-leal holes should be drilled in the ends to receive a heavy, pointed tempered stell screw, screwed into the front legs at E, E, thus giving a small amount of friction, with a ready means become loose. Very much depends on a nice, true, balance wheel, but many saws that do very well are made with much lighter ones than the above, and some of them are even made of hard wood which however we cannot recommend. recommend; a better way is to buy some kind of an Iron wheel, even one selected from heaps of old Iron will many times do after be-

ing covered with wood and turned off true. The position of the saw and the manner of supporting is clearly seen in Fig. 6; the saw should be about 8 inches in diameter and can usually be purchased best with the arbor, of some saw maker. The driving pulley should be about 2½ inches in diameter, but two,

would be better if covered with rubber which can be had nicely adapted to the purpose, of J. W. Sutton, 95 Liberty St. N. Y. As we have arranged the pulley so near the balance, which seems almost unavoidable for ease in working, this rubber covering becomes very necessary unless we fix a pulley to take up the slack of the belt somewhere at F. The construction of the top will be seen at a glance at Fig. 4, it should be made of 1½ inch hard well seasoned wood, screwed firmly to the 1½ by 2 inch pieces so as to leave the slot G, 4 inches wide, for the bar II, to slide in. You can exercise your skill in seeing how strait you can dress ont II, and how nicely yon can fit it to slide in G, for the accuracy of all of your work will depend much on this; also see if you can fit I, in place so perfectly square that you can saw ont a piece of board so true on all sides that when turned clear around every corner will be square.

It should also be adjusted to make a perfect mitre such as is used in making pleture frames etc. Spring stops are used in both of the bars I, and J, made of a strip of brass 3 by 3 inches and about 1-16 thick, bent at right angles at 1/2 inch from the end; the long end is fastened by two screws in the bottom of a shallow mortise in such a way that the bent portion projects as seen at I, but can be pressed out of the way by a slight pressure, consequently when these stops are once set right for the sides, ends or cover of a hive, by holding the corner of the board against the proper one we always get exactly the same measurement; the same is true of frame stuff when held against J. For rabbeting etc 'tis very convenient to be enabled to raise and lower the whole top, this is done by the screw K, the lower bar of the top, being entered at the ends Into holes made in blocks mortised in at Z, permitting the top turning on it so as to allow being raised as seen by the dotted lines in Fig. 1, also guides are hinged at each corner as seen in M, and N, to enter mortises in bar A, shown iu Fig. 6.

O, is a strip 1½ inches square hinged with three common hinges to back of table top in such a way that it can be turned over on the top, or turned completely below the surface on the back side. The usual parallel stick P, which should be about 2½ square hardly needs description, it is attached to O, by the strips hinged to turn firmly at R, S, T and U, and fastened in its place by bar Q, with a set screw where it slides through a mortise in stick O.

Treadle, Fig. 5, is made of stuff about 2 by 3 and is pivoted ou bars A, as seen at W, Fig. 1, in a manner similar to the balance shaft. The hook on the crank D, is pinned at its other end in the treadle at X; the step for the foot is a piece 1½ by 6 inches by 2 feet and is made to project at Y, for convenience in working at the side of the table in rabbeting etc.

Top of table 3 by 41, feet; top of table from frame 3 inches. Top of table from floor 3 feet; distance between legs A, length 3 feet, width 2 feet outside. Length of treadle 3 feet; width as great as the space will admit. We would use a belt if soft about 3 inches wide.

It will be observed, the balance runs a little below the surface of the floor, and that we de-

pend on having the front feet bolted very firmly to the floor as there is no room for erosspicee as in the back end.

So many directions are given for filing saws that we prefer that each one should learn by experience how to file his saw so as to have it cut nicely.

We have been asked to make our description very minute, which we must offer as an excuse

for having given such lengthy detalls.

It will be observed, we have so arranged the table that it may be cleared in an instant of every obstacle, and it should be located in a room large enough to enable us to saw a sixteen foot board in two in the middle if necessary, as it often is, to enable us to use the best economy in working our lumber. With a good machine, and an expert active operator, the speed at which good hives may be made is almost ineredible.

A quick, bright eyed boy or girl of a dozen years, when they have learned to handle the pieces, will assist almost one half, and if not kept at it too long at a time, will learn to en-

joy it more than play.

For further particulars in using the machine see Vol. 1. To do nice work and to do it ensily, use seasoned pine lumber planed accurately to exactly  $\frac{7}{6}$  of an inch in thickness. P. S.—W. Bingham & Co. Cleveland, O.

furnish excellent saws both rip and cross cut, size mentioned, for \$1.75. We think they can be sent by mail for about 10c. each, if wrapped in stout paper.

#### Humbugs and Swindles Pertaining to Bee Culture.

[We respectfully solicit the aid of our friends in conducting this department, and would consider it a favor to have them send us all circulars that have a deceptive appearance. The greatest care will be at all thus maintained to prevent injustice being done

T seems too bad to allow our old friend to monopolize this department but when we get an advertisement, and a kind letter from him direct, we certainly ean't refuse to insert lt; as we put lt in the reading columns too, he really might afford to pay us extra. are sorry to be obliged to advise our readers to get their Queens some way, before sending the money, for a number of letters seem to indicate that sending money to Mr. M. is like pouring water into a tunnel, you know perfeetly well where you put it but that's all.

Columbia, Tenn. Feb. 11th, 1874.

MR. A. I. ROOT, DEAR SIR:—Please Insert the cuclosed advertisement in the next Number of your valuable paper, and let stand for six months, send bill in May. Would be glad to furnish you with any early Queens or Nucleus Colonles you may want; we will have Queens ont in March. Send paper.

Yours truly, N. C. MITCHELL.

# EARLY ITALIAN QUEEN BEES.

We can furnish any Number of Pure Italian Queens or Nuclei or full Colonies in April and May. Send for price list. Address N. C. MITCHELL,

Address A. C. MITCHELL,
Columbia, Tenn.
After May 1st, address Indianapolis, Ind. or Cln. O.
We trust you for the advertisement Mr. M., but Gleanings is, cash in advance.

7. H. Boughton's advertisement still appears in Mrs. Tupper's Journal yet complaints keep coming in from those having sent him money.

# DEPOSITORY OF BLASTED HOPES.

Or Letters From those who have made Bee Culture a Failure.

our colonies, but noon examination this week, they have the appearance of hybrids, can it be the cold weather? We have about 30 swarms in Langstroth hives, have been at an expense of \$200 and more, and have never realized 10 per cent. At first we thought it was from increasing, next we could do better by Italianizing, this was worse for they swarmed too often—now we think it from the scarreity of Bee forage, though we have sown Mustard and Bockwheat and planted Borage, we shall now try Horse mint, and expect to try Linden, and think we will get 200 or 300 trees from you, next fall at the proper time, when do you think best?

Macon, Ga. Feb. 6th, 1874.

We are so little acquainted with the South E thought we had completely Italianized 12 of

We are so little acquainted with the South we hardly know what to advise, but much doubt the policy of raising artifleial pasturage to help the matter. Have our friends used the extractor? Is there not some month in the year that gives a yield of honey greater than ean be seeured, and have our friends had their colonies strong and thrifty in anticipation of this? We are inclined to think with Mr. Quinby, that after we have secured the honey that is now wasted, there will be time enough to then think of artifleial pasturage. Has none of the \$200 gone for "patent hives"?

Have been very unfortunate for two years past, lost more than half my apiary, winter before last. Lost it all last winter, Italian, hybrid, and black. Stock on hand about 50 hives of empty combs, Supers, hoxes,

hand about 30 fives of empty combs, Supers, Boxes, Immber, etc. etc.

Cause of loss, Melextractor; long cold winter; Celar too cool; inwholesome antumn houey perhaps, etc.

Truly yours,

Excelsior, Minn. April 22nd, 1873.

We don't remember to have heard how our friend came out, but guess he is all right now, for our Western Apiarists have a way of "pitching in" and getting their 50 or 100 colonies again, that is amazing. We can hardly think the extractor should be blamed, although its owner might, if he used it to starve his bees.

# Reports Encouraging.

WILL give a few facts about my bees. weak in the spring, gave, box honey, 400 lbs. ex-tracted honey, 420 lbs. Increase 12. My book shows I have sold the above, at an average price of 22c. shows I have sold the above, at a vertage pint of Jenes, that I shall try some of your advertised men next senson.

H. W. Minker, Sarlnac, Mich.
P. S.—Considerable has been used in the family besides some remaining on hand not in above report.

I have 72 stocks of bees all in cellar, all O. K. Thave 12 stocks of bees all in cellar, all O. R. Telle every Queen's wings of close to her body as soon as fertile, then I can attend to my business or go to church without loosing bees by swarming, I lost 75 stocks last winter; wintered out doors; commenced spring wi h 13 stocks; and did not divide until after June 15th.

E. D. Godfrey, Red Oak, lowa-

That's the sort! Bec-keepers should "Never say die." Why elip so much of the Queens wings? We don't like them to look like "bugs."

Last summer I felt the need of a saw to do my own Last summer I felt the need of a saw to do my own entting, (as I could not get my staff cut nearly,) after reading your description of yours, I made one and have cut out 700, 3 lb. boxes, besides much other work, just as It ought to be done. Last summer I had 2l colonies, in September I increased 40, which at this date, are nice and dry and in good condition.

W. Stump, Cin. D.

W. Stump, Cin. O.

P. S .- In dividing I had Nucleus Queens ready for

the new swarms.

#### HONEY COLUMN.

NE of my honey customers here, a wholesaler NE of my honey customers here, a wholesner told me the other day that he bought 100 cases Philadelphia (so culled) white clover honey, but that he could not recommend it any more since he knew my honey, and that be would buy no more Philadelphia honey when his present stock was gone. Chas. F. MUTH, Cln. O.

Now is it not possible for the people to become so well posted on honey, that 'twould be as easy to palm off a poor article of butter, as honey. Butter makers well know that a poor article when thrown into market, finds its level right speedily. Why is it not so with honcy?

You are welcome to the jar of honey, we have 30 more, it will kill the bees in winter, and inner them any time, so will any honey that has fermented, and any honey will ferment in summer unless kept very cool, I do not know from what source it was obtained. We are putting up honey in glass tumblers with paper covers, one side is covered with wax, and made fast at the top with the same, it works first rate.

We had a curiosity to see some really poor honey we dow! got the seesone really poor honey.

honey-we don't get any here-and the above was rec'd in reply to some of our queries in regard to it after receiving it. It certainly is poor and what surprised us was that our "slow oven" process didnt make it good. In regard to fermentation, we think our friend is wrong; we believe neither honey nor syrup can ferment unless it is too thin, i. e. contains too much water. We feel quite certain our Medina Co. clover honey as we now extract it, can not be made to ferment in any weather unless water be added.

I have been melting candled honey and was just thinking how nice the double tin hive for Queen hatching would be for this purpose. R. Wilkin, Cadiz, O.

Thanks for the idea; by having a molasses gate attached to one corner, candied honey could be "jarred," quite expeditionsly and the even temperature, that cannot exceed boiling water could not possibly injure the color nor flavor of the honey.

# Heads of Grain, FROM DIFFERENT FIELDS.

R. A. ROOT: SIR:——Since Jnne last I have been a constant reader of the A. B. J. and am so well pleased with your way of talking on Bee-topics that I have long felt an inclination to write to you on the subject, but when I read in the Nov. No. that you had more triends than you desired I concluded to wait a while. A few days before Christmas the Dec. No. came and in a few minutes I had your explanation. Now that the holdays are over and I have entirely recovered from the effects of the gayeties thereof, I write, and if I prove tedious please charge It to my interest in and love for Bee-keeping.

Permit me to indulge in a little personal history for I love to tell what a great benefit this business has been to me. My habits were sedentary and in the spring of 71 my life seemed only a question of time; and a very short space of time; but It was not so, for I took the advice of a sensible Physician who prescribed "little medicine, generous diet, plenty of sleep, and in mersting light out-of-door occupation." I engaged in Bee-keeping with my Brother who did all the hard work but in the Winter of 72 he moved away since which time I have had to "row my own bout" with not even a sister to suggest and assist as "Nellie" does "Cyula." My Pather is an old farmer and will not look at Bee-keeping through my spectacles. I never owned many colonies; lost four infits during the winter and spring of 73, the remaining five ninths were very weak, I learned a lesson there.

Although the past season seems to have been quite unfavorable I have no idea of reliring from the Apiary but hope for better seasons and intend making an honest effort to make this business r m nerative this past effort to make this business r m nerative this past effort to make this business r m nerative the past effort to make this business r m nerative the past effort to make this business r m nerative the past effort to make this business r m nerative the past effort to make this business r m nerative the past effort to make est effort to make this business r m native il liyear; and think it necessary to have an extractor. Brother and I used the Meilpult—of course I do not want It—I have seen two cylinder machines but it seems to me they were both unnecessarily heavy and inconveniently large. Tell me in what particular your \$6.4 \$10 machines differ. I want a good durable machine but the leanness of my portemonnale forbids my buying ornamental things, well as I like them. Do you consider diluted honey objectional as syring feed?

An Interested Bee-keeper.

Hendersonville, Tenn.

Hendersonville, Tenn.

Our friend is not the only one who feels she ls much indebted to bees for a longer lease of life, and also for having given a new zest to the pleasure of living. Our cheap Extractor is the same as the other excepting the outside can which is neither as convenient nor durable. We know of no objection to feeding honey in the spring except want of economy, when sugar is so much cheaper.

Yes, I want Gleanings of course, would not be willing to do without it. I have all the Numbers published in a little book now with index, and I must say, that, among all the back Nos. of the four Bee Journals I am taking and all the books I have on the subject, there is not to be found so much useful matter in so small a compass as in Gleanings.

I have been keeping from 50 to 60 swarms of Bees here for the past four years, and have lost over half each winter on the average, but at this date every swarm is lively and seems perfectly healthy under the straw mats on summer stands. I have never used the mats before this winter.

I believe the merits of eating as a honey producing

straw muts on summer stands. I have never used the muts before this winter.

I believe the merits of eatulp as a honey producing plant have not as yet been fully appreciated, particularly if it is grown on good ground and entitysted. I cultivated a small patch in my garden last summer and my bees were swarming on it from the 25th of dune to the middle of Sept. almost three months, and there was not a day during the whole time so stormy that they were not on it some portion of the day. I have raised plants the past season to cover nearly an acre, which I shall transplant and cultivate carefully. I have sowed a large amount of the seed on wasie places about for two years, but the bees do not take to it any thing like they do where it is on better ground and entityated. Will try to give you some results next season. It is my opiniou that the catnip will out do Linden altogether coming as it does and lasting through the whole season of scarcity. Quinby says: "If there is any one article I would enlivate exclusively for honey it would be Catnip."

M. Nevins, Chevlot, O.

Give us the results of the "Catulp planta-

Give us the results of the "Catulo plantation" by all means. Even If a failure you should have the hearty thanks of all Bee-keepers. We are very much inclined to agree with Gallup that a brisk growth brought about by cultivation or other causes is almost essential to the secretion of honey, and with the eatning if we are correct our only hope of making the project pay is the honey it produces.

DEAR Novice:—As I have been dabbling a little with bees for many years, and reading the A. B. J. for two years, to see who was the biggest fool, and could get up the most complicated intricate and difficult bee hive and moth cage, and as they are still getting new patents I fear I shall never see the end, so I have concluded that one practical man (If he be a Noylee) is better to consult than a host of theorists; so I have concluded to try Noylee. concluded to try Novice.

B. T. TALBOT, Viola, Iowa.

We have experimented considerably, and flud Adair's drone trap to be worthless; his close litting section hive an intolerable unisance, and find that his new idea hive will not do what is claimed for it. It will not prevent the building of drone comb, and is enough to wear the patience of Job, to handle the frames frequently; besides it is too revolting to humanity to be compelled to brutally murder our innocent pets; and altegether too barbarous to be tolerated at all in this enlighten slarge.

Dr. E. C. LARCH, Ashland, Mo,

The above, although seemingly harsh Is a very fair illustration of the practicability of many of the patented appliances for Bee Cul-It may be however that Adair has a knack of handling them himself more successfully, but we cannot think he works a very large Apiary with Section Hives.

Apropos of Problem 19th, has the following fact any significance? My queenless colony raised hundreds of little drones during November, which month with as was coliec, more wintry than December. The cells in which salu little drones were reared had not been lengthened—were capped over like worker brood. It is reasonable to suppose, therefore, that genuine worker brood would, under the same circumstances have reserved the same regression. ceived the same cure.

May it not be then, that by removing the queen, after securing a supply of eggs, (I suppose a plan might be devised for keeping her safely a few weeks,) the rearing of a limited quantity of brood (or an unlimited quantity, if eggs can be obtained,) can be at any time ensured?

L. A. W.

We have often noticed how carefully eggs and larvæ were nursed in a queenless colony, but are not prepared to say from practical experiment that more young bees would be raised. Those having queenless colonies this spring (see Dcc. No. page 90) will be pretty sure to test the matter and we hope will report.

I see that Bee men are not yet satisfied as to dysentery or bee disease, and I never was till this winter and now I know the cause, found the cause acciden-

and now I know the cause, found the cause accidentally and not by smartness.

I put all but 7 in the cellar second day after the cold weather, and the 7 several days after it inraed cold so they had been exposed and were gorged with honey, and being combined were not able to empty themselves, and the result dysentery or bee disease, the 7 are now all dead, while the remaining 85 are good and all right. I would willingly wager 5thlyes against 50 that I can produce the disease in any hive by exposing to a severe cold snap say a week, mercury some times down to zero or below, then if the weather turns favorable for flying, prevent by putting in celtar or bee house and expose again, perhaps once will do.

D. D. Palmer, Eliza, Ilis.

We are sorry to dampen our friend's enthusiasm but he forgets like many others that the same thing has been done hundreds of times without injury, again, perhaps the worst cases of loss were in Feb. and March or even April, where the bees were left out and not moved at all. Precisely the treatment he mentions does not give our sugar fed colonies the disease. He further adds some heavy questions for a Novice to answer but we'll try.

A few questions for GLEANINGS.
1st.—When bees are gathering honey or pollen do
they gather from one or more species of plants?

2.d.—Have on eas ever been known to mate with a done of a fertile worker or an unimpregnated queen?

3rd.—Why do bees build their combs corrugated

or wavy?

4th.—Will Queen cells do as well in a hortzoutat position as perpendicular after being capped?

5th.—Do the bees leave the cocoons in the cells?

6th.—Can bees hear?

1st .- Usually one, but we find many exceptions.

2nd.—A number of direct experiments seem to indicate the small drones good, but others

stoutly contend they are not.

3rd.—We think generally because the colony ls weak. When the colony is strong and blve "chock" full of bees, combs are generally strait and regular.

4th.-We think so but may be wrong-

5th.-You may see by dissolving the comb in hot water.

6th.—Mrs. N. says they can, for they always come to the pump in dry weather when they hear it going.

What is the size of the perforated tin you use on your ten-kettle feeder, what is the number, how line. answer in GLEANINGS

F. W. CHAPMAN, Morrison, Ills.

About 17 holes to the inch each way, are found in the perforated tin we use, but we rather think targer holes would be less liabte to flll up with sugar, however a tea-kettle of Some one hot water cleans them quickly. proposes to make these feeders of boards made tight with wax; these will do very well one season but after that, make much trouble by leakage, white tin although a little more expensive, lasts indefinitely.

Light Wanted:—I have been trying to make some bee-quilts and can not make them to sult, they get so puckered up that they will not the down square, we tried to quilt them with a mathine, please Instruct us by letter.

Albert Potter, Eureka, Wis.

Don't quilt them. Make them just like a pillow case and have them rather large; have the sides of the hive come at least a half inch above the top of the frames and then tuck them in tight every time so not a bee can even make faces at you before the hive is closed.

If it be not necessary for Polish bees to ily for purification for a period of eight or aince months, why will not our bees remain quiet and healthful when conimel for half the thue?

Would you not like frames 14 inches long, (Instead of 17 ½,) provided you could ill a hive with them of same capacity at same expense, better than you do your present style of frames?

Is there not too much weight of comb and honey in your \$5 \text{ y in } \text{ in he hrames, to hundle in the extractor safely?

G. E. Carlin, M. D. St. Johns, Mich.

We know bees used to stand a low degree of

cold for months in northern climates and really cannot see why they should not stand our winters for the last few years. We feel quite certain we can raise more brood

in the shaffow Langstroth frame than in any deeper one and we find them also best adapted to the extractor after having tried all those given on our circular except the Adair frame.

Much depends however on having a very tight hive; the movable side, in our American hives always lets in so much cold air, as they always must do, that, perhaps our experiments with deep frames were defective in that respect.

FRIEND NOVICE:—We fellow Novices would like to know if the honey thes above the comb in using them end downward in the extractor, and does it take less force to throw it out that way, than it would if hung as it is in the hive? With the extractor I use, the honey fless up six inches or more when thick and cool. R. S. BECKTELL, New Builalo, Mich.

If the frames revolve one luch lower than the top of the can we cannot imagine how the honey can fly out. With the frame longest way up and down, no part of the comb need exceed 6 inches from the central shaft, consequently we have less centrlfngal force, the machine may be lighter, less power is required to stop and start, and we work easier and faster.

Can I keep bees successfully in the heart of a City. or will they interfere with Grocery and Confectionery Shops, that are near? STEPHEN WILLIAMS, Nashna, N. H.

When there are no natural stores to Yes. be had, keep them busy on sugar as we do, and if you think you cannot afford the sugar, make them pay for it by rearing \$1.00 Queens.

# "Latest Intelligence" CORNER

Questions not too lengthy, may be answered through this department even it not received until within two days not the first of the month; and in two days more, nothing preventing, you may have your paper containing the reply. If our friends would use a separate piece of paper for this, and in fact for each of the departments, and write on one side only t'would be quite a favor, but if it's too much trouble, don't do it, for we want to hear from you any way.

HERE we are once more; this 27th day of Feb. 1874, and Bee Culture stands about as follows:—No positive case of the dreaded malady has yet been reported; unusually favorable reports come from all quarters, soth in regard to out, and in door wintering.

Bee Keepers Mag. for Feb., we noticed last month.

WE would suggest to Adair the propriety of returning the money seat him for his Dec. Annals. Three months behind time can hardly be considered excusable.

ALTHOUGH Mrs. Tupper's Journal for Feb. did not come to hand until the 26th, she presents us one of the most valuable Nos. yet issued.

a THE A. B. J. made its appearance on the 9th, with an unusually fine selection of valuable articles. Both in typography and arrangement, it is not only a credit to our branch of industry, but to AMERICAN JOURTALISM as well.

The Bee World for Feb. made its appearance on the 25th. Its typography is somewhat improved, and Mr. Moon seems to have a fine corps of contributors; but for werey's sake, why does he not get some one to read his proof. If the man can neither read, write, nor spell, himself, he certainly should not leave his readers to infer that no one in Rome, Ga., can do any better. Among all the host of transient Periodicals with which our country is now flooded we have never before seen any thing so lamentably deficient in the principles which any common school education should give, as Mr. M's attempts at editorials. We say this with no ill feeling toward Mr. M. but on the contrary would be much pleased to add to our list of Bee Periodicals, one published in the South.

On page 220 of A, B, J, for 1870, J, L. Davis writes; "But I do say that I can raise Queens for \$1.00 aplece if taken as soon as fertile," by which it appears we were not the first to suggest the idea.

SEVERAL complain that their Italians look like hybrids in the winter; we think this only owing to the fidded colors of the old bees, and that when the young bees get out, their markings will be equally as fair as last season, unless the Queen has been superceded.

INSTEAD of the long arguments, as to who is right, and who is wrong on whitering, would it not be as well to watch and see who is most uniformly successful? Those who perfectly understand it should winter, aye, and "spring too," without loss. We hope all will be as faithful in reporting losses as successes.

N. C. MITCHELL, writes to ask our readers to defer concluding him really untrustworthy until May or June, when he will make good all promises. He also insists, Moon is much the veese man of the two, yet we have let him go "scott free"; to which we reply that Moon has done nothing, so far as we know, whereby the good of community requires he should be "shown up"; unless it be, forsooth, his mardering of the English Language.

(Continued from page 26.)

Our reason for putting the Quinby frame last, was mainly on account of its size, and as there must be a stopping place some where, we had concluded that about the capacity of the L. frame was enough. Our objection to the American frame in A. B. J. was written while using the old style with cross bar in the middle, and of a depth of 15 inches or more; when made 12 by 12 they can be readily used in a tight hive like the L. without a movable side. Yours were probably the old movable side American hives, and perhaps this was somewhat the reason for the lack of brood. our impression you could have done nearly, if not quite as well, with the L, hive. We agree with you perfectly in regard to the Queen's dislike to enlarging the brood nest downward. Being enabled to use 8 combs instead of 10, would be with us a heavy argument in favor of the large frames, and were we to haudle them personally, without expecting any aid from feminines and inventles, we might give it a preference. In our attempts to get the bees to work in boxes, we have for two seasons had illustrations of heavy Q. frames that were enough to intimidate a good sized child.

In regard to the divisible frames; we made similar ones two years ago, and formed a plan of having the hive so narrow, that with rabbets clear around, we could put in the small frames eross wise, and the whole ones length wise, thus securing the advantages of the Gallup hive for Queen-rearing etc., and the Quinby hive for honey. After getting over our first enthusiasm on the idea, we concluded the advantages were not sufficient to compensate for the complication rendered necessary for a divisible frame; and so we turned back to our old Langstroth frame again, as we have many times before, satisfied it was nearest the desid-

eratum, all things considered.

THE long, one story hives had better be made with a permanent bottom board "let in" like the oover, for it will be found quite difficult to make them tight otherwise, in so long a hive; besides as they are not to be used two story, there is no especial need of a loose bottom. Further directions next month.

WE have 13 colonies under as many manner heaps, (now covered deep with snow also) with the south side of the hive exposed, in such a way that they can fly, at any glimpse of sanshine, ad libitam, and yet the manner affords so much protection that we think water would not freeze, under the same conditions, during the most severe winter weather. Is it possible that we have at last a pian of wintering our bees on their summer stands without exposing them to a freezing temperature? This would chime with the broad one story hives nicely.

Were we to judge of the value of Conventions by the excellent addresses of Prof. Cook, and M. Quinby, given respectively in A. B. J. for Feb. and Utica Morning Herald of Feb. 5th, we should have no doubt of their great utility. The Convention at Utiea, furnishes a great unmber of practical facts, and much credit is due them for their concluding summing up of the report in a tabular form; but why does it not embody also, the yield of Capt. Hetherington's largo apiary? Attend Conventions by all means, when you can do so without making the expense of the Apiary, on an average, overbalance the total receipts. Will the kind friend who sent us the above papers accept our carnest thanks for the same.

GET your bees to working on the meal now as speedily as possible. Exercise your ingenuity in securing a piace tor it in the sun, but out of the wind, rain and snow. A mixture of grains seems to please them best; we bave just had ground up finely together, one bushel of rye, two of oats, and one of wheat screenings composed largely of chess. For economy in using it we would put it on a level platform large enough to alrord a foot square for each stock. But little attention will be paid to the meal after they get natural pollen.

I have 40 stands of bees, (Italiaus) use the Gallup frame—bees in good order—have several "New Idea Ilives," did well last year—rather large—think I prefer 21 frame hive to 32—my long hives did better last year than the standard or 12 frame hive—began iast spring with 20 stands, purchased them mostly of Gallup—ail Italiaus—enson poor—basswood falied, sold less than 300 lbs.—put the hives into cellar, all but ten of the largest—and prepared them for winter according to Gallup's mode. I think that I will make some of your form of hives this spring—if for nothing clied if the them on account of there being no waste material.

Names of responsible parties will be inserted in either of the following departments, at a uniform price of 10c. each insertion, or \$1.00 per year.

## \$1.00 Queens.

Names inserted in this department the first time without charge.

Those whose names appear below agree to furnish Italian Queens the coming season for \$1.00 each, under the following conditions: No guarantee is to be assumed of purity, safe delivery or any thing of the kind, only that the Queen be reared from a choice, pure mother. They also agree to return the money at any time when customers become impatient of such delays as may be unavoidable.

Bear in mind that he who sends the best Queens, put up neatest and most securely, will probably receive the most orders. Special rates for warranted and tested Queens, furnished on application to any of the parties.

J. Shaw & Son, Chatham Center, Medina Co., Ohio.

I. E. Daniels, Lodi,
G. W. Dean, River Styx,
E. C. Blakeslee, Medina,

Wiilis J. Pheips, "

W. J. Hosmer, Janesville, Minnesota. John L. Davis, Hoit, Mich.

James A. Buchanan, Wintersville, Jeff. Co., O.

Dr. J. P. H. Brown, Augusta, Georgia.

Miss. Annie Sannders, Woodville, Miss.

W. J. Standefer, Dry Grove, Hinds Co., Miss.

W. D. Wright, Knowersville, Albany Co., N. Y.

# Hive Manufacturers.

Who agree to make such hives, and at the prices named, as those described on our circular.

Geo. T. Wheeler, Mexico, N. Y.

G. W. Dean, River Styx, Medina Co., O.

# Business & Personal.

Apiarist Wanted; S. W. Greisinger, Carlisle, Pa. And "Lyons," care W. W. Barnum, Southport, Ind. wants a place; can make hives or handle bees. Also: Situation wanted; but we have lost the applicants name, as we have diso the names of several who had empty combs for sale, etc., but if you'll send your names with the respective "ten centses" we'll submit the whole matter to our readers. Advertisers should remember that GLEANINGS is so small every word is usually read.

WE are pieased to note that Mr. Quinby offers empty comb for sale. At the price he has fixed—50c. for Quinby frames of worker comb—we think they should go off rapidity. Those having empty comb in any of the standard frames, we think would find a ready sale for them by advertising. His new smoker it seems to us would be cumbrous; 'tis worked with a little belows.

There are a few things in Mr. Q's circular that we cannot help protesting against. For instance;

"In consequence of the advantage which this five enables us to take of the labors of the bees, by preventing their swarming, &c., it is safe in a good season to calculate on an average of one or two hundred pounds of box honey, or two or three hundred when the combs are emptied with a machine—which will self for more in one season than the price of colony."

This has appeared in his circular we believe for three years, yet if any Bee-keeper in the U.S. has ever made an apiary of 50 or even 25 hives give such a result on an average we should be pleased to hear of it. We wrote Mr. Q. when we first saw his circuiar containing the statement, asking him if it was wise to putit so high; even his own apiary since then, so far as we can gather, has given an average of considerably less than 100 fbs. either box or ext'd honey. Shonid the hive have a great advantage over those in common use for box honey, we can hardly think even Mr. Q. himself intends to intimate, his hive has any especiai advantage for extracted, yet it seems to read so; it consists when arranged for the latter, simply of 16 Quiuby frames arranged horizontally with the entrance midway at the ends of the frames.

The new swarming arrangment can of course be applied as well to any hive that affords them room to work, but we believe it is now pretty generally conceded that a faithful use of the extractor sione, rarely fails to prevent an attempt at swarming, rendering the queen yard useless for any but box honey.

Is it well to hold out to beginners a statement like the above? 'tis almost sure to end in "blasted hopes." Would it not be better to estimate 50 libs. on an average? then if they did better than that there would be no feeling that they had been humbugged by having false hopes held out to them. Again:

"In giving this hive to the puolic, it is not with the idea of making it pecuniarily profitable. It is designed for our own special use and advantage in connection with this system of management. But being wiffing that any person who might wish to give it a trial, without subjecting us to the trouble of giving a detailed description of it, should have the privilege, we have given it publicity, and we will furnish the hive as a sample to work from, cheaper than to give a full description, with measurements, &c., which we cannot do."

Has he ever considered that as the hive itself is only a plain simple box, fufi directions could be published in the eircular, or even given in the Journals at the trifling expense, to him, of making the measurements, and descriptions once. As his price for the empty hive with one box and Queen yard, is \$8.00, and they can easily be made for \$4.00, it looks as if there must be a "pecuniary profit" somewhere. Such cumbrous hives should certainly be made near home to save the great expense of shipping; aimost every neighborhood of Bee-keepers now affords some one who can make good hives, at a moderate price. The express charges, (Mr. Q. recommends sending them only by express) on such a hive is really "fearful," as many of our friends in the Western States can testify. Aside from the glass in the honey boxes, there can be no trouble whatever in sending the hives safely as freight, if a little extra time and expense be used in erating them.



# DEVOTED EXCLUSIVELY TO BEES AND HONEY.

Vol. IL

APRIL 1, 1874.

No. IV

#### HOW TO CONDUCT AN APIARY.

#### No. 4.

FTER the many hints given last month in regard to tidiness etc., and then to go and eover our own hives up with stable manure may look a little inconsistent; it might well be said of us as of some physicians, that they resemble sign posts, inasmuch as "they point the way for others, but go not." Well, the truth is kind friends, we did not dare advise all to do as we have, until we had well tried the plan, any more than we dared three years ago to advise all to sell their honey at 20e. and wlnter their bees on syrup at a cost of 08c., yet we should by all means advise the the latter now. Tis now March 11th, and we have had some very cold rough weather that has made us many times thankful our bees were even warmer than they would have been in the house; besides, the manure when washed by the rain and dried in the sun is not so very untidy after all. It covers the ground so as to make a clean soft carpet to walk on, while the uneovered clay soil is a most unpleasant foot hold through the combined effects of sun and frost. We shall probably leave much of the covering around the hives until May, for usually many sudden cold changes occur with us, between now and that time.

Strong colonies can probably have a comb put in the middle of the cluster advantageously during this month, but the plan of taking brood from them to build up weak ones, we regard as more of a damage to the strong one, than benefit to the weak, although such a course may be best to save Queens of extra When you take a comb out of the centre of the eluster, you often take the best half of the brood, and sometimes nearly all the pollen, and the weak stock may be able to prevent only a small part of the brood from perishing. Get every colony as quickly as possible into a condition of things whereby they will be self sustaining, and to do this we know of nothing equal to the meal feed; and we know of no pleasanter or more enticing work about the apiary than getting them briskly at work on the meal. The heaviest erop of honey we ever had was when we induced them to take in most rye meal in March. We are in some doubt if even natural pollen gives brood-rearing the impetus the flour does. Several patent feeders have been claimed to be a controlled to be a contr ed to have the property of inducing the bees to take the meal in the hive, but as we have entirely failed with such contrivances, as have

all we have conversed with on the subject, we think they may be safely classed with humbugs and swindles. We have never been able to induce them to take any substitute for pollen even when placed in a comb next the brood; the act of flying out and gathering it on the wing, seems to be absolutely a necessity.

The plan advanced of keeping the bees housed during this month or until flowers are in bloom, it seems to us would be decidedly an error. We think modern Bee Culture demands that we proceed to get the hives full of

bees as speedily as possible.

If they can get up a large force to work on apple blossoms they will be prepared to send ont an army of young bees when the clover appears. That colonics may catch up and do fairly even when so kept back in brood-rearing is quite probable, but our largest yields have invariably been from those that commenced brood-rearing quite early. In our opinion the erop of clover honey is very much dependant upon the start the bees get during the month of April. Who can report a colony having brood in every comb in the hive during this month?

See your bees often, and please excuse us if we say it "often." Some day when you feel like taking a little rest, take the hives one by one and observe whether each one carries in pollen or meal at a fair rate; if It don't, see what the trouble is. If queenless, give It eggs twice a week from some stronger stock on the plan given on page 90 Dec. No. of Vol. 1, until they can rear a queen of their own. Any good queen can during this month furnish three or four times as many eggs probably, as her bees can eare for, therefore if we cau remove eggs only, we are not injuring the colony, and are furnishing the weak ones all the help they require.

Colonies with old or unprolific queens, can be treated in the same way. Before you object because this is too much trouble, consider that 'twould be time very well invested indeed if you could induce your weakest stock to do as well as your best. Almost every one has colonies that occasionally give a great result. Now this is too much luck and chance; we should be sufficiently skillful to make our entire Apiary give a great result, perhaps not two or three hundred lbs. to the hive, but half that for instance, from 50 colonies would make a "big stir" in almost any neighborhood.

The best we have ever done was an average of 131 lbs. per hive, from 47 colonies, yet we have had a fair paying crop every year; even the past one of 1873, with only a yield of hou-

ey for barely 10 days, gave us average of about 35 lbs. from 57 colonies, which paid for all care, and a comfortable percentage on the amount of capital invested besides.

#### THE STANDARD HIVE AND FRAME.

TRANGE it is, but scarcely a new thing comes up in bee culture, but that if we examine carefully, we will find somewhere a record of where our old friend Langstroth has been over the same ground before us. Even now we have just called to mind a pleasant correspondence that passed between us just before the time of our mutual friend Wagner's death when Mr. L. was in Washington. correspondence originated from sending Mr. L. one of our new frames. We were then considering a 12 x 12 frame. We extract from different letters as follows:

Washington, Apr. 4th, 1872. e you will try the 12 x 12 DEAR FRIEND:—I hope you will rry the 12X 12-but I have years ago tried such frames and do not like them—too much cost to make, handle, etc. I think the nive 14 X 14 and 13 deep much better, and shall probably adopt that shape, as the honey emptier and side boxes make it no longer so desirable to have a stretten bir. shallow hive.

April 5th, You will see from my last that I propose

to change the dimensions of my frame, perhaps there will not be much to choose between the hive 14 x 14 x 13 and 12 x 12 x 12, but 1 prefer the first, 1 much prefer ten

Here comes a reply to some queries of ours in regard to the Simplicity hive which then "filled our head;" also as to confining the bees to a single story and using the Ext. on friend Dean's pian, see page 55, Vol. 1.

If you refer to Fig. (I) P. 20, (my hook) you will see that I used an open nox. Try some on this new plan, but let me strongly cantion you not to go into it targety. You will never like the movable B. B. you will intit an into crabbe nuisance, there is not time to go into the reasons, but you will find I am right. Uniter some circumstances perhaps as much could be empired from a single, as from a double lifve, but it cals too close. Too little room room for brooth, we want the brest to get the set of frames pretty weil dilted with the sented honey—not safe to go on any other plan, their scaled honey-not safe to go on any other plan, their own first, notess we take about all of the best and re-place with sugar syrup, this may pay with present

-By carefully calculating the difference

April 10th.—By carefully calculating the difference between 12 N 12 N 12, and 11 N 14 N 15, 1 find that ten traines of the latter sized hive, will have nearly as auch comb surface as the tenever of the former. As we have comb surface as the tenever of the former. As we have not that a factor of the former. As we have that the fact that in poor seasons the more frames, me more the honey is scattered etc., and there of handing, the fact that in poor seasons the more frames, me more the honey is scattered etc., and there is the win make one hive of my new size.

April 25rd.—I know that you and those with you, can not only bear plain criticism that desare it. Let me remain you how apt we are to let an idea run away with us. When we get a good thing we are amost sure to run some parts of it halo the ground; it seems to be that you are in danger of doing this in two things, the one I have just mentioned, and the dispensing with the fixed bottom bound. When you have fulry worked it out, summered it and whatered it. I feet very confident that you will come to the constitution of reached 20 years ago. White you try it in your Aplary, et me advise you not to recommend it to the punofe, until you have put it to the test in your own Aplary. I mlink our leading Apiarians should be very chary of recommending what they have not tested; often, suggestions from such parties, lead to cash adoption of them, and serious injury to non-experts. When I was most largely engaged in experimenting I tound to be a good plan to give my notions to triends, that together we might work them out. They having too paterual interest in the notions, are more likely perhaps than myseff, to see in them only conceits. But enough of this, I hope that you will understand what I am aiming at.

It seems to us that we have scarcely a reader who can fail to see the rare good sense that shines in every line of the above.

After reading it again, we have the same feeling that we had two years ago; that we were utterly incompetent to advise in regard to a hive that will be best, all things considered, for the coming generation of Bee Keepers. Of one thing we are sure however, and that is, that the plainer and simpler it is, the better, That the Simplicity hive will give equally as good yields of honey as the more complicated and costly hives has been abundantly proven, and were we going to use a two story hive we should most assuredly use a movable bottom board, and precisely the hive we advised last season. In regard to the size of the frame, it seems our friend Langstroth had anticipated as usual, the fact that a different shape might be better when we considered a hive suitable for the Ext. only, and the dimensions of a frame for the hive he suggests would be very nearly the one we are now talking of for a Standard.

Now we have ample evidence that as much honey can be seenred with frames a little deeper, spread horizontally; and the advantages of such a hive for the extractor are too obvious to need mention. We believe we have only then to consider the subject of wintering; one plan that will certainly answer is given by friend Palmer, page 29, and another is our present "hobby" of the stable manure.

That a few inches of chaff, straw, or old clothing, around a hive is no positive protection, we think is generally admitted, and unless we can give a colony a place that will keep fruit or potatoes from freezing, they had much better be on their summer stands. We wish some one who has had a positive experience in the matter would tell us how much manure would have to be heaped over a bushel of potatoes, heaped up directly on the ground, to keep them from freezing. Such a place, and such a temperature, from what we can gather from many experiments, reported from different points, would seem to be most desirable for bees to winter.

Having an entrance continually open on the south side would tend to make the bees colder than the potatoes, but on the other hand we have their own animal heat, to balance this disadvantage. A covering of earth would do of course, if thick enough to prevent frost penetrating, but having no source of heat within itself like the mannre, and being so heavy to handle we must consider it out of the question. From what experience we have had we would feel safe to risk the bees under, half a wagon load to each hive; we would feed them meal at any time during the winter should opportunity offer.

It has been often objected, that they would fly out and get lost during unseasonable weather, to which we answer, they have as yet done nothing of the kind. They sometimes come to the entrance and look out, as much as to say "aint we nice in here?" and again they tip their heads on one side to observe the sun and clouds seemingly, but don't go out nuless the weather is such they can readily get back. Remember no breath of wind touches them whatever may be its force or temperature.

As we have had our "say," we will now try and tell what hive we would advise, were a beginner to tell us as many have done, "Novice, I am just commence and wish to commence right. What shall I use for a Bee Hive; all things taken into consideration up to the present time, what would you advise?"

Now it is with very much hesitation we answer in favor of the Adair frame in place of our time honored Langstroth standard, and one great reason we have for so doing, is that the hive for it can all be made of boards of a single and moderate width, also considering that the hive will never be used two story.

In practice 'tis found that we do not need quite, 11/2 inches to the frame but that 20 frames work very conveniently in a hive 281/4 inches long inside, or 30 inches ontside measnre, as described on pages 23, 28 and 35, present Vol. With a permanent bottom board, we believe we would prefer the Langstroth blocks for closing the entrance, to any thing we have yet used; and one principal reason is, that they always guide the bees quickly and surely home; whether they are laden with pollen or honey and in eager haste to unload and get more, whether they are tumbling in pell-mell at the approach of a thunder shower, or whether 'tis only the juvenile Italians wanting to get home after having tried and approved their wings for the first time.

Really, how slowly we get along to-night; if we don't come down to business we shall not get our Standard hive done at all. Well, we would prolong the bottom board in front about 3 inches, and would have the outer end beveled off on an inclined plain, that bees might erawl up readily from the ground when heavily laden. We make the front end-board narrow enough to leave a space the width of the hive,  $\frac{7}{6}$  inch wide for entrance. This entrance when open full width, will afford all the ventilation ever needed, for in our opinion the wire cloth arrangements for ventilation are next in uselessuess to patent moth traps. The eutrance blocks we would make triangular,  $\frac{21}{6} \times 7\frac{1}{2} \times 8$ ; they are pushed into the entrance.

Before the hive is used we would have the bottom board thoroughly painted, and then would keep it from the ground only by  $\frac{7}{8}$  strips clear around underneath; bottom is "let in" the sides to exclude wet. We do this because 'tis warmer near the earth, and less manner will

be needed to cover them in winter.

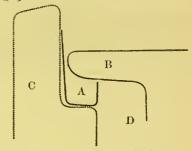
Now in regard to hinging ou the eover; with a length of 30 inches, three hinges are really needed, one in the middle and one near each end, and as Simplicity hinges can only be used at the ends we fear we had better drop them entirely for the long hives, as there is no occasion for removing the covers at all. To those who would remonstrate at so many changes in our teachings, we have only to say that all real progress must be a series of tearing down and building up again, and if we give you on these pages, real life, it must come combined with inperfections, and error. Those who have L. frames or in fact any other, can make a hive on this plan to try it, and use the combs they have. Where the width of the frame necessitates using a cover greater in width than 16 inches, we would make it of two boards, and to make the joint water tight,

sure, we simply saw in to the edge of both boards to the depth of about 3% of an inch, thus leaving, when the boards are placed close together, a groove in which we may slide a tongue, made by folding a strip of tin one inch wide, thus:

if water gets in as far as the tin, it can go no farther and if the crack is filled with paint, it—well, It's very good. A similar tongue made of wood is apt to check in time by shrinkage of the boards, which the tin cannot do. We have just made an L. hive to hold 30 frames with two joints in the cover and bottom made in this way; use the thinuest tin unless your saw cuts a very wide groove.

So many questions are asked about the metal rabbet, a place for it, bevel etc., that we give the following rade cut, explanatory. The rabbet  $\Lambda$ , is printed from a section of the tin rabbet itself, and in fact the whole diagram is printed from strips of tin bent up hastily. [We respectfully tender the idea to the eraft free of

eharge.]



B, is the supporting arm of the frame testing on the edge of thin metal of A. For nailed frames, this arm should be dressed out very exact, for nules it is, the frame cannot hang true. We would also have the end sawed off to a sharp V shaped point where it strikes the back part of A, that the bees may have as little chance as possible to wax it fast. For this latter idea we are indebted to W. H. Shane, of Chatham Center, this Co. Our reason in fact for having a back part to the rabbet, is to get a smooth surface for the frame to strike on, and to avoid gumming; they are much less liable to attach it to tin than to wood.

The space under the arm at A, we have endeavored to have just large enough for a bee to "promenade" easily through; if they can't, they fill it with propolis. The tin is cut in strips 1½ inches wide for the rabbets, the places where bent, and angles, can be taken from the drawing. C, represents a seetlon of the ½ board with the place cut for the rabbet, ¾ x 1½; we prefer this extra depth to give plenty of room to tuck down the quilt; the wood remaining, being just ½ inch lu thickness. The bevel ou which the cover shuts is just about what we prefer; for directions for cutting it exact, see March No. of Vol. 1.

It will be seen that we ent rabbet in C, square in, both ways, but the back of A, is slanted; this is to be sure to have the top edge of A, come tight against the wood, that nothing may get behind it, and to have the frames glide smoothly into their places when handled rapidly. We would give each frame about 1-16 end shake, having space D, between hive and frame, never less than ½ nor more than ½ inch.

# ABBREVIATIONS IN BEE CORRESPONDENCE.

ITHOUT question, It is of the utmost importance that every aid be given to facilitate interchange of thought and experiment, among the devotees of our present stage of advanced Bec-culture, and as almost every mail gives us evidence of some one having developed some particular feature, it is of great importance that those working in the same direction, exploring an unexplored region as it were, be put in communication with each other

As an illustration, friend Wilkin of Cadiz. O. sends us a sketch of a plan for a floating Apiary to traverse our Western and Southern rivers, and in a few days, we think it was friend Klum, of Sherman, Texas, who desired our opinion of a similar plan; of course we endeavored to induce the two to open a correspondence. Now is it not plain that by far the greatest good will accrue to the greater number by giving the full P. O. address of each correspondent? Such is at least the view we shall take of the matter notwithstanding the fact that by thus giving our friends publicity they may be annoyed by circulars of all sorts of humbugs and even counterfeit money propositions etc. If we cannot keep them too well informed to invest in such trash we shall consider our duties poorly discharged indeed.

Again, it has been said that the value of the advertising department is lessened by giving names in full, to which we reply, "be it so." When people are so well informed that there will be no need to pay for advertising, we will devote the space to some other purpose, for our purpose is to inform the people, not to keep them in the dark, and when we cannot get allberal support for the former we will consider which is best, the latter, or the humilating admission that we have mistaken our

calling.

Now for our plan, after so much of a preface, and we really hope you will hear us through before you object. Postal cards are a glorious ald to Bec-keepers, and we had rather have a postal eard brief, plain, and to the point, thau the most elaborate letter, always supposing the writer, if he can consistently will have his name and address plainly printed on one corner. If our friends could know of the annoyance eaused as by earclessly written addresses, and having to guess at the probable State in which a town is located, we are sure they would be more careful. A postal card will not contain a very long letter 'tis true but by omitting all forms and pitching right into your subject at once, they will generally do; they had better be dated to avoid possible confusion but this can be done very briefly, and if your address is printed on it, even a signa-ture may be omitted. In regard to privacy, should every one who can, read all postal eards pertaining to bee culture, we hope, he would be the better and wlser and we none the worse

Novlee has quite a laborious correspondence to get over and as his right hand is not as good as the left, it must of a necessity be considerably condensed. When our letters come from the office they are first carefully examined, and postal cards addressed by P. G. to all those requiring answers; those containing orders, or items for publication are distributed to their respective departments. Now Novice many times finds the card rather small assome of our readers may have observed, and such long words as "extracted honey," "fertilization of Queens," etc., fill out a line before he is aware of it, and the thought has many times occurred that such frequent terms might be abbreviated in such a way as to be perfectly intelligible to Apiarists and yet take but little room, whether they should be plain to outsiders or not matters little, to us. In reading a letter from Mr. Harrison who was one of Mr. Wilkins employees last fall, we were struck with a system of the kind of their own, which we found perfectly intelligible, viz; using Q's, for Queens and h's, for hives.

"We would snggest the following table of

We would suggest the following table of abbreviations to be used in correspondence or in writing for this Journal, as our compositors will of course understand it. We would advise all to punctuate, observe the proper use of capitals, and in fact to omlt nothing that might lead to an erroneous reading of the item.

Qucen, Q. Virgin Queen, v. Q. Fertilization, Bee Keeper, bkr. Bee. Brood, bd. Drone, d. Comb, em. Hive, lıv. Brood comb, bdem. Honey, Worker " hy. wem Extractor, Drone xtr. dem. Feeder, Ext'd Houey, xtdhy. file Extracting, Frame, xtng. frm Fertilize, Pollen. fz. pln. Fertilized fzd. Propolis, pls. ple. artf Prollfle, Artificial. Langstroth applied to Hives or frames, L. Qulnby, Qy. G. 66 44 66 Gallup, Standard, 66 66 66 66 Std. American Bee Journal, A. B. J.B. K. M. Bee Keepers Magazine, National Bee Journal, N. B. J.

#### OUR OWN APIARY.

HE day being fine (March 1st.) our 13 colonies sallied ont from beneath their respective mannre heaps, and worked on the meal in a way that was highly gratifying, as we believe this is the earliest we have ever sue eeeded in getting them to take the meal. It was sprinkled on the summit of these same heaps to get them started. In the forenoon they worked on the south west side; at noon, on the south; and in the afternoon as the sun turned, nearly around to the west. The dark color of the manure causes the sun to warm it up quickly, aside from its own internal heat.

March 2nd,—We are so much pleased with the manure protection that we have put our entire 50 hives (all there is now) on their summer stands, and are making manure heaps over them as fast as possible. P. G. and Mrs. N. are decidedly of the opinion that the plan is any thing but neat and ornamental, whatever may be the effect ou brood-rearing; and even little "Bine Eyes," (not quite 1½ years old) says "phfew," at the aroma given off in handling the steaming 18 loads, of the fermenting prod-

net of the stables. Perhaps we might as well admit that Novice has gone wild over the project, and declares he never wants to put bees in-doors again to winter. It will be remembered the lower bar of the trellis is one foot from the ground, and by setting the hive about six inches back from them we can build the manure from the hive to this bar, in such a way that the entrance of the hive is nearly a foot back in the heap; the sun shines In here but no rain nor wind can enter, and the bees will come out and bask in the sunshine, apparently as happy as kittens, during days that are too cool for them to fly.

March 3rd-To day we finished covering our whole 50 hives with the exception of the Quinby hive whose great size appals us; all strong ones except that, are working merrily

on the meal.

March 4th-We must have our Quinby hive enjoy all the advantages of the rest, and so we have taken away the hive entirely except the bottom-board and frames; have eovered the latter with shingles and were thus enabled to get them in shape to be covered nicely. As they occupy but a comparatively small compass in this way, we should consider it an excellent plan for wintering the Q. hive.

We have found but one ease of real dysentery, and that is the live that hung on the Spring Balance. At the time of feeding them they had more sealed stores than any of the rest, but owing to the position they occupied they had been passed by when we did the regular Ext'ng preparatory to feeding, and as our things were washed up we, "kind of concluded" that it must have been mostly gathered from the half barrel of dry sugar. Weil, we to day cleaned out the hive, covered the trames with dry straw, put the eover over it loosely a la Muth, and covered them up with the rest.

March 14th-We have had just two weeks of bad weather, some of it extremely cold and wintry. As most of the bees are out again to day, we concluded to be out too, making examinations. Spring Balance colony is dead; frames, combs, and bottom-board badly soiled with the disagreeable excrement nearly as black as tar, although there was plenty of bees, and abundant ventilation arranged through the straw. As there is nothing like it any where else in the whole aplary, we hope we may be excused for thinking if we had left them all with their uatural stores we should have had many similar cases.

Tis true, many of the sugar fed colonles soll the snow, and Mrs. N's. clothes on washing day, (she says they are sure to fly on Monday foreuoons) but the spots are light colored and of a yellowish hue, and even when fed late, on

their syrup, they never exhibited the symptoms of the colony just mentioned.
"Tis our painful duty also, to chronicle the loss of 4 other colonies; and a fifth that was found with about a half dozen Italians guarding the entrance from a series of such desperate attacks made on them by robbers, that we were led to look inside, and beheld the Queen disconsolately trying to "keep house" alone. This colony was the only one of the 13 put under the manure heaps in Feb., but what are in fine condition, and in their case they were

so well protected from the cold that their numbers were thinned down, one by one, until the last half dozen were actually doing duty as lively as ever. We eaged the Queen with her few remaining subjects, proposing to send them to "Cyula" (we hope you will all know her bye and bye) but "more troubles" interrupted this neighborly plan. The day had been unusually fine and the bees poured out in such glee, that we several times feared for our Queens, and sure enough shortly after noon we heard the very unwelcome note of swarming. We could with a good relish, have "taken a shingle" to every individual bee, that started the mania, but there was no help. One Queen with a elipped wing we caught in a short time, but one young unclipped lass we found just in time to get her out of a knot of bees at the entrance to another hive; this one we reeognized from her shape and color, and put her in her own home forthwith. The other onewell, she died, for no other reason that we know of, unless she did it "jnst a purpose." Although "Cyula's" Queenless colony received no positive aid, they can take notice they are remembered.

As to the eause of the swarming out, we found the colony of the Queen that died, destitute of eggs and brood, although having plenty of bees, and so think it likely she had other was a remarkably prolific Queen, reared last fall late, and had a fine family of bees, with brood and plenty of everything. We can only guess that the bees went out with such a rush that she thought they wanted her to go too, and she "go-ed" but we hope she will be

good now and won't any more.

We have now lost 13 colonies out of 57 and our only way of accounting for most of the losses, is that there were too few bees in the fall. This is not wholly satisfactory however, for one of our most populous, are among the missing, (see page 30 March No.) and three, that were among the very weakest are doing finely, in fact one of them had many more bees this spring than when put into the house. When Mr. Wilkln was here last Nov., we showed him a colony with the remark that it seemed folly to expect, such a handful of bees to winter, to which he replied they might nevertheless, and to our astonishment they are to day one of our fairest. Why didn't they dwindle down too?

If we were going to make any deductions 'twould be about like this: Weak colonles may build up, but the chances are greatly in favor of their going the other way; and the worst feature about it is that, judging from a great number of reports, we seem to have but little power to control the matter. Also, strong colonies may dwindle down, but the chances are rather in favor of their not doing so, hence we must conclude after summing it all up that,

STRONG COLONIES ARE ALWAYS SAFEST, and perhaps we might add, for all operations in

Bee Culture.

March 18th-And the end is not yet. Two more stocks falled on account of insufficient numbers, in fact one colony hadn't "ary numbers" at all when we found 'cm, but the combs indicated they had dwindled down to a very

small eompass indeed before they left "tee-totally."

All we can do now is too keep saying over to onrself "we'll show folks how we can build

up bees if we can't winter them."

March 19th—No more mortality, but we find a Queenless colony on which to practice our teachings. Have just made a feeding house or shed. The north and east sides are closed and sonth and west open, the roof slants to the south, leaving the caves which project over the floor considerably, just high enough to walk under.

The meal is distributed on the floor, which slants slightly to the south, in such a way that the sun's rays strike it almost perpendicularly, some portion of it during the entire

day

The bees have been at work all day in it, although much of the time they flitted there and back during quite a drizzling rain; they also worked there briskly, in the direct rays of the declining sun long after they had ceased flying elsewhere. Floor is 6 x 12 feet (longest east and west) and roof is enough larger to protect it from ordinary showers.

'Tis in the north-east corner of our inclosure, and the tight board fences 8 f't high, keep off

cold winds quite satisfactorily.

March 20th-An amusing phenomena. The day being too cool for bees to fly ordinarily, they kept at the entrance of their hives until the sun came out between the clouds, when they went for the feeding house with a rush; to return almost as quickly if the sun chanced to cease shining. At about 2 o'clock the effect was novel and striking, when all had been silent, after about 2 minutes sun-shine, we would have a sweep, and rush, to be followed by a small "roar" of bappy industry. The feeding house being warmed only by the sun, was deserted as soon as it eeased lending it's rays. As an experiment we presented them with little heaps of wheat flour, eorn meal, ground chess, rye and oats, and lastly dry sugar. All of the grains were dabbled at, generally new comers, but all soon settled down to a decided preference for the rye and out meal. A few tasted the sugar but seemingly concluded the meal was of much the most importance.

FRIEND Gallup says In A. B. J. "Our theory Is, that bees kept perfectly dry, discharge the excremental portions of their food in small and perfectly dry peliets" etc., now we protest against this on the ground that it's Quluby's "theory," and that he should be left entirely in undisturbed possession of it. After taying given it publicity at length, in so many periodicals it seems rather hard to have some other writer chain it now; the more so, as we think it can easily be shown to be an error the whole of it.

Mr. Q. should remember that bees are constantly cutting away the combs, or gnawing them down in places, whether they have capped honey or not. The old brood combs containing cocoons are cut and drouped down along with the cappings, which are of a different color, as are pieces of different combs; this is all we find on the bottom-boards of our filves, and we have examined a great many. Like the assertion that the extractor killed the brood, this is a question needing no argument, for every bee-keeper can easily see for himself. It you wish to be sure, get a magnither of moderate power, and also throw some in hot water as Mr. Q. advises, until the wax separates from the cocoons and propolis.

# Gleanings in Bee Culture.

Published Monthly,

A. I. ROOT & CO.,
EDITORS AND PROPRIETORS.

## MEDINA, OHIO.

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## MEDINA, APRIL. 1, 1874.

B. K. M. came to hand March 6th, A. B. J. on the 7th, N. B. J. 23d, and Horld, on the 25th.

LEST It might escape your notice, we would remark that we are a little larger this month.

MR. CURRY writes: "The bees in the hot-bed must have ample ventilation," but we have found no trouble as yet when covered with a quilt.

Among our subscribers we find a George Bee, And what is still more funny, Another halling from Cleveland, Ohlo, Rejolees as, Riley Honey.

We wender if the following from Josh Billings, won't apply to bee-keeping: "You'd better not know so much than to know so many things that a'n't so.

CLUBBING rates will be the same as given last month with the exception of the *B. K. M.* which has been advanced to 1.25, consequently price will be with GLEANINGS 1.75 instead of 1.50, and \$4.25 for all four.

Mr. Quinby gives full directions for making his hive in Country Gentleman of March 19th. The article certainly merits the thanks of the bee-keeping community, for it is a well directed effort toward enabling those who wish, to make their own hives.

In Rural N. Y. for March 21st, we find excellent reply to Prof. Riley, on Bees and Fruit. The writer covers the whole ground we believe, unless it be that he omitted to consider the moral effect it might have on a community, it the plan of poisoning, were adopted whenever a neighbor's stock became annoying.

In describing the Bnzz-saw last month an error occurs in the positions. When the operator stands at the end of the table, the balance wheel should come at his right hand; the saw just before him; the silding figure 4 shaped pleee, at his left, with the square bar nearest, and the diagonal, farthest from him. Also the "parallel bar" seen hinged to the back of the table in fig. 4, must be on the right, directly over the balance.

As ours is somewhat an experimental Aplary, and our time necessarily much occupied with this "growing child." (GLEANINGS) we fear we shall not be able to Furnish either Queens or bees before July, more than we have already orders for. Messrs Shaw & Son, Daniels, and Dean, are making preparations to rear them largely, and can probably furnish better stock than ours also; we would therefore advise that orders for early Queens be sent them.

Of a readers will notice that we are now using the mailing machinery, and if the date after the name is not found to indicate the time at which their subscription should expire, we hope they will advise us at once. A small 3, before the word Jan., indicates

they have had Vol. 1., also; and if fig. 7, 'precedes the 3, It means they have both the Photo., and Vol. 1., in order that we may know in answering any inquiries a subscriber may make, what he has at hand to enable us to make our answers fully understood, without going to too great length in writing him.

TIS no very difficult matter to make any of the hives you may have he use, over into the New Idea pian. All that is necessary is to remove one side from two of them and fasten them together side by side. The covers and bottom-boards can be united weather proof by the strips of the meutioned on page 39. Make the joints alr-tight, and then make them look as well as you can with paint. Although, 'tis true, new blves just as we want them are rather nicer, yet many feel as if they cannot afford to throw away their old ones, and we must avoid paying cashout, certainly, if we are going to make the business self-sustaining.

EVEUT day brings reports from different localties, of successful wintering; those wintering in doors and out, on sugar syrup and natural stores, with old bees or young, upward ventilation and lower, and even with stores entirely unscaled, both of honey and syrup, in fact under aimost all circumstances, seem alike to have been successful. Can we not all join together in a feeling of gratitude and thankfulness, without stopping to quarrel over who was right and who was wrong. One friends who feel inclined to be so very sure they have found the bottom of the matter, should remember that where all have succeeded, nothing is proved. [Since the above was written a few losses have been reported.]

"WHY, Mrs. Tupper!" Is it possible your bees also object to using combs transferred in a different position from the one in which they were built?

We have for years used the combs cut from tall box hives, turned down horizontally, and transferred at one time the combs from 30 American hives to the L. frames, turning a half of every comb. We have many times also for experiment turned deep store combs appside down, and they filled them with honey right speedily.

Agala, our Revolvable and Reversible friend Price, has a hive that admits of being revolved every few days to make the bees labor more industriously.

We haven't heard from him at all since his controversy with Dadant. Where are you friend P.?

It's a funny way, some people have of abusing another in print, and then apologizing by letter. It certainly makes it all square, and perfectly satisfactory, besides being soothing to the feelings.

It often reminds us of the woman of Irish birth, who after having sold a heavy silver watch ease to a Jeweier, and got the money earefully knotted in a corner of her handkerchief, remarked exultingly,

"And it was my Jemmy as stoic the watch from one of the 'b'yes' at school, he did."

"Stole it did you say?" replied the alarmed Jeweler, extending the watch back toward her.

"Ait, faith and be jabers and didn't I iarrup him well for it? It's all right." And off she marched triumphantiy, leaving the Jeweier to moralize on her way of easing ones conscience.

WE shall really be obliged to state for the benefit of a thoughtless few, that our large supply of the different Xo's of Vol. 1, cost us considerable money, and we cannot give them to those who did not subscribe for them. We vaine complimentary letters where we think them sincere, but when they wind up with a request for something of which they have omitted the necessary remuneration for the cost of getting up, we have a kind of feeling that we would regard the enclosure of the modest little sum of 75c. as the high est compliment that can possibly be paid GLEANINGS. We really shall have to make it something this way: Sample numbers, our choice, free; your choice 10c. each.

Of course we shall always think it a pleasure to furnish our regular subscribers with missing No's, or to replace any they may have loaned or solied in procuring subscriptions, free of charge.

MR. Moon takes nearly a page to show that we pronounced the Introduction of virgin Queens risky, but afterward discovered it to be much easier than the introduction of fertile Queens. Mr. M. also states that it was well known before, which we are very happy to hear, for he certainly has faith then in a matter we expect to have stubbornly contested. For instance: In B. K. M. for March, Mr. King replies to a correspondent who asks if t'will do to introduce Queens as soon as hatched, in the following prompt and ready manner:

"No. Bees are more inclined to kill unfertile Queens" Now friend M. you will do us quite a favor if you will show Mr. K. his error.

"Our Discovery." Well 'twas substantially this :

A Queen newly hatched will treat the first bees she meets as if they were of her own family, and they in turn either pay no attention to her, or treat her kindly; but if she has been with the bees of any particular hive long enough to get acquainted (even for one hour) she will act as an intruder among any other bees, and will be liable to be stung. Had Mr. M. been over our experiments detailed in Vol. 1, he might not have misunderstood our remarks. We would like to add that the livorid is improving, but we find seventeen distinct errors in spelling, punctuation etc., in the editorial referred to. Mr. M. may be an excellent practical Aplarist, nevertheless.

## HONEY COLUMN.

Every good housewife, is supposed to know how to serve up honey for food without any instruction, and all are familiar with its fitness for warm biseuit, or hot buckwheat eakes, but we beg leave to suggest a dish, in our opiuion far superior to either, and certainly more wholesome. Get some clean nice wheat, the best you can find, have it ground so coarsely that the graius are just broken, in fact we call it "cracked wheat"; a common coffee mill set very coarsely will grind a sample for you to try, but in our family nothing short of that "everlasting windmill" could begin to supply the demand. Boil it thoroughly with just enough water to allow it to turn out of a dish when cold, like jelly. To serve, cut it in slices and warm it in the oven until it will melt butter nicely, pour on plenty of clover houey and -we leave the matter with you, we are done.

Yet stay! It only costs per lb, just one half the price of wheat flour, and if you wish to "hold ont" till noon on a heavy day's work that must be done before that time, try it.

I have 250 lbs comb houey, mostly basswood—want 25c. for lt, here. J. F. Tenpie, Ridgeway, Mich. I have about 1400 lbs ext'd houey, from golden rody

I have about 1400 lbs ext'd houey, from golden rodbnekwheat and boneset; I am offered 13c, but want 15-Feb. 24th 1871. JAMES HEDDON, Dowaglac, Mich-

# DEPOSITORY OF BLASTED HOPES.

Or Letters From those who have made Bee Culture a Failure.

O the Editor of GLEANINGS:-We have lost 15 colonies out of 57, and what is more ers are so weak in bees, we fear we shall lose ore. Can you give us any ndvice?

From your old friend, *Novice*. Medina, Mar. 24, 1874.

Yes. Stop trying to teach others how to winter bees, until you can winter your own withoutloss; mennwhile listen to those who do do it

outloss; meanwhile listen to those who do do it. I put into whiter quarters 43 colonies, took out 27 alive, probably will not get over 20 through till fruit blossoms appear. Father put in 38 colonies and took out 5 alive. In every case without an exception those that are alive, are those that were strong in the fall. Probable cause of their death was dividing and subdividing to raise Queens last season. Now sir if I don't have strong swarms after this, I am mistaken.

We have just got our high board fence done around them, and think it will be a great help. I am not at all discouraged yet, but, sometimes get a little blue over it.

over it.

Father and I will have 40 to 50 swarms to commence with; he has purchased 12 swarms to-day and will get more. I never suw bees carry in rye meal as fast as they have in the last few days, little and big swarms, and the Queens are doing their best; no deserting yet. If hemp will supply bees with pollen we shall raise it. Just got some seed to sow.

Chatham Center, O. March 19, 1874. F. R. Shaw, That's the time to wind up with friend S.

That's the time to wind up with, friend S. If some of our "hopes" are "blasted," we ain't "licked" by considerable. It may be well to state that both S., and ourselves used stoves in our hee houses when the weather was quite cold, while the rest of our Medina bee-keeper's used none: we are the only losers; Dean, Blakeslee, Shane, Daniels, and Parsons, have all' done well, the two former losing none. If our "tinkering" with stoves shall prove a warning to others, we don't know but we "feel happy" after all.

#### PROBLEM 20.

T'S been a long while coming but here it is; we wish our readers to get at it, just as we We wish friend P, lived near us that we did. might compare notes with him as we are almost "in the same boat;" besides we really have much sympathy and respect for all honest preachers, but not for the class who put Rev. before their names simply for a lever to help them sell goods, as one of their number ouce expressed it; but our friend has the floor; we're rather backward-never "talk" much.

We're rather backward—never "talk" much.

MR. NOVICE. Deur Sir:—I wish to ask you a few
quesilous. Four years ago I commenced bec-keeping.
First year increased frem 12 to 26 swarms, lost all but
ene first whater—dysentery. Made of that one left,
and one more bought in spring, 8. Sold the 8 in fail
because had to move, (am au liberant Preacher.) I
now have only 2 swarms, wish to build up an Aplary
of 50 to 100. I would build up to that, this sammer
and sell 3/5 of them in fail if I could, is bees are nearly
ill dead around here and would sell well, I think.

Now how shall I do? Shall I use full swarms, or
Nuclet? or shall I use both? I suppose I should use
some full swarms bul what proportions?

AND NOW COMES THE PROBLEM PART.

Will It pay to use syring to make combs when there

AND NOW COMES THE PROBLEM PART.
Will It pay to use symp to make combs when there is no pasimage? or will It be cheaper to buy combs?
I am located 1½ miles from a Basswood grove, Would bees do well that distance? or would it not be better to move a few of the stronges! swams to the edge of the grove during the Basswood yield?
How would it do as the Passwood harvest commences, to strengthen some few of the strongest swams in two story lives, or long Gallup hives, and take them to the grove during the harvest and expired as often as possible?

Z. D. PADDOCK, Light House, filts. March 13th, 1874.

Since our losses we are getting afraid to advise, but will hazard this much: We would use only full strong stocks, and do all our dividing by taking a full comb from each and ninking a strong stock at once; then when you are compelled to stop on account of winter, you are all right.

From the experiments we made in artificial

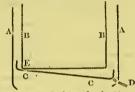
comb built on foundations, we think nice combs can be made by feeding sugar, cheaper than they can be bought, see page 4. A very little feeding will keep comb building going

on, ln warm weather.

In regard to the Basswood grove; Itahans will work very well 11/2 miles. We should say, take all or none, and be constantly with them wherever they are.

#### HOW TO MAKE A WAX EXTRACTOR.

AKE this paper to your tin-smith. Tell him to make a bottomless tin dish, (with a close fitting cover,) about 91/2 inches high by 121/2 in diameter, as seen at A.



It will be observed that the bottom edge has a rim attached, tapering inward, this is to be made just right to fit inside of a common tin pan, which we use to generate the steam. B, B, is a plain basket or can, made of coarse which we use to generate the steam. perforated tin; it has strait sides and bottom, and joints are simply lapped and soldered; size is  $8\frac{1}{4}$  high, by  $10\frac{3}{4}$  in dlameter, this is to hold the comb or cappings. Now, if this were simply suspended inside of A, the wax when melted would run down into our tin pan boil-To prevent this we have a tin plate C, 111/4 inches in diameter, with a rlm 11/2 high around the edge, held permanently by three supports soldered from it to the outer ease A, (besides spout D,) so as to hold it suffleiently on an incline to allow the wax to run out of the spout D. Now when we have three supports fixed in this pan in such a way as to hold our comb basket B, B, in a level position, and exactly in the middle of A, (the back edge E, nearly touching the bottom of the pan C,) it is done. The spout D, only projects about 11/2 inches, but another one about 6 inches long is made to slip over this, to carry the wax off from the stove into a proper receptacle.

The whole arrangement is to be kept in the honey house set over a common tin pan as mentioucd, and the cappings, waste bits of comb etc., are thrown into it as they accumu-The short tube D, must be kept tightly corked to keep out bees, and to keep in the honey. When the comb case gets full, lift it off the pan containing the honey that has drained ont, and set it over a similar one coutaining boiling water on the stove.

By having them made at home you save freight, but if your tinner can't make them for \$3.00 tell him we will. P. G. says they should

have "ears" to lift them by.

#### A SHORT CHAPTER ON POULTRY. With a moral that may have a bearing on Bee Culture.

NCE upon a time a lad "got up to the head" in his spelling class, and what Is more he did the same thing, not only once but several times, until he eventually seemed a silver quarter of a dollar, awarded as a medal the last day of school, to the one who should have earned the most head marks. On his way home on that eventful day, he mused somewhat in this way: "spelling I have conquered, or at least pretty nearly, (remember he was of only about a dozen summers,) and now what is to be "lieked" next, and what is to be done with the silver quarter?" If we follow him a little, we may discover his project for solving the two problems at once.

That same afternoon after having obtained the maternal sanction of his plan he trudged off 21/2 miles to "Grandfathers;" and "Grandmother" being absent the following colloquy

occurred:

"Well, what's broke now?" queried Grandfather who sat by the fire in the old "cellar kitehen."

"Nothing's broke, but I want to buy two hens."

"Want to buy two hens? what for, where is

your money?" A display of the quarter, and a relation of how he came by it, seemed satisfactory, and then came the query;

"But don't you want a rooster too?"

"No, they don't lay eggs."

"You are only intent on making money

"Yes; if they lay eggs enough to bny more heus, I shall probably get a rooster too, but just uow I only waut what the quarter will pay for.'

"You would not take a rooster theu as a gift?"

"I had rather not."

A bargain was soon made, after the above prellminaries, but we must digress a little here to explain that beside the fire place in this old cellar kitchen a brick oven had been built in the wall, and Grandmother had so far domestieated two large cream colored "biddies," that they had for some time been in the habit of laying great white eggs in this same oven; after which feat they modestly betook themselves out doors with the rest of the fowls; but it always seemed that these two hens had a kind of a way of looking up at a body as if they knew something that other folks didn't; they only approached their novel nest when Grandmothers back was turned, and rarely If ever intruded in the house at other times.

Now regardless of the "great store" she "set" by these two, Grandfather picked them np probably because it was less trouble, and onr hero of the spelling book was traveling home happy, with a hen under either arm. To confess the truth we fear his enthusiasm was somewhat abated before he reached home, and his musings as to whether these two hous were not unusually large, were once brought to a dangerons crisis by his silpping down on a steep rough gravelly bank when near home. Twouldn't do to let the fowls go after all this

trouble, and so he "held till 'em," but to judge by the twist of his mouth at this tlme, we should think those gravel stones were prob-

ably quite harrassing.

The fowls were duly housed and eared for, and many a happy hour was spent in devising improvements, by way of giving them a wider range without any excessive cash on lay; furulshing them a better variety of egg producing food, studying all the agricultural papers had to say on poultry keeping etc., etc. Bye and bye, a Poland hen with a brood of 14, comical top-knotted chicks was added; they were purchased for a small sum, of a neighbor who had become tired of their mischievous propensities.

Regular accounts were kept and the "hen business," as his sister termed his hobby, really paid; not much it is true, but when the young Poland pullets began to lay in Feb. and eggs were eighteen cents a dozen, our young friend felt as happy as the proprieter of a

small Gold mine.

And now we come to the "pint" as Major General Jack Downing used to say, and in fact we should not have written so much on Poultry for a Bee Journal had it not been for

this same "pint."

This same poultry honse and yard, built of old rotten boards, refuse lath, and all sorts of odds and ends, was on the south side of the horse barn; the family poultry lonse, a com-paratively large and expensive affair being directly east of it; with the MANUNE from the stable bounding the west, which in fact before stable bounding the west, which in het before spring, came very near covering the whole structure entire, do you wonder those hens laid eggs? Ou the ground of economy the roof was entirely open on the south side, so the sun shone directly on their scratching ground, and some tempting nests were formed by bedding boxes back under the mannre with entrance partially obsenred by straw. Of course eggs uever froze in them, and in fact the back part of their domicil was quite a warm retreat during the coldest days. Cousiderable of this coarse stable manure was seratched through the loose structure, and to furnish them employment their grain was buried in this, which kept them scratching the material over aud over until it was like sawdust, thereby keeping the ground under their roosts always clean and wholesome, on the plan given by Mr. Stoddard In the Egg Farm papers in American Agriculturist.

In this ease it seems a condition was secured free from frost, wind, rain and snow; yet admitting sunshive during the middle of the day all winter long. Is any thing else needed for

the sneeessful wintering of bees?
After charging the "hen business" and trying it away from the barn and manure heaps, It did not pay as well, yet the real cause, probably, of the difference in results was not thought of at the time.

P. S .- "Grandmother" was very much inclined to be vexed at the loss of her "pet biddies," yet under the clreumstances, and lu consideration of their being in the hands of her favorite grandson Novice she at last became reconciled.

Also, we omitted to state in the proper place, that Father's larger number of fowls in their large ponltry house, with 24 elaborate nests,

gave but very few eggs compared with ours, and they almost invariably froze, as did the combs and feet of the fowls, besides.

# Humbugs and Swindles Pertaining to Bee Culture.

[We respectfully solicit the aid of our friends in conducting this department, and would consider it a favor to have them send us all circulars that have a deceptive appearance. The greatest care will be at all times maintained to prevent injustice being done

HERE! that's just our luck. ton has been offering her \$15.0 Lizzie Cotton has been offering her \$15.00 Controlable hive for seven dollars, but the magnificent offer was only to remain open until Feb. 24th, and we didn't get the circular until March. After above date, price is positively be as heretofore \$15.00. This hive is not patented; heretofore \$15.00. oh no! but if \$7.00 gives a profit we yankees would like to know—There! we wonder if the \$10.00 Honey receipt isn't offered for less than half of its value too, for a very few days.

Very few patent hive circulars have come in of late, yet there are other swindles in the bee business that need ventilating. Foremost among them comes our Queen-rearing friend of Kelley's Island, who writes letters using the terms "thee" and "thon," we're sare we don't know for what reason, for he can't be a Quaker. They wouldn't advertise as he has done, at extra prices, and then send those reared elsewhere. A gentleman who will come forward if need be, tells us there was not a single Queen reared for sale on the Island last season, and that our "thee" and "thou" friend did not reside there. Worse than all, the real genuine Foul Brood, is raging there badly, and he was informed, they had been unable to stop it, even though they had tried burning, burying, and all prescribed remedies. As there are but few colonies there, could not our Ohio Bee Keepers afford to bny them, and have them entirely destroyed until such a time as the Island shall have become free from contagion. Those who have had experience can tell that the disease is no trifling matter.

Would it not be better in shipping Queens, to use only sngar or candy, and to destroy all combs received with them. It really seems no more than just that every locality where the disease has prevailed should be given publicity, even should it occasionally result in pecuniary

loss to single individuals.

If any facts can be brought to show we are in error in regard to the Island, we shall be most happy to publish them.

Another class of evils cries out for a remedy; the following extract will illustrate it. stand ready to furnish all names when neces-

receipt of the money, but the Queens have not come to hand, nor have they returned the money; they wrote me once that they would send me some of their wares, or any thing else they had to sell, but I do not want their wares, nor the bees now, as I have ree'd Queens from other parties. I have so informed them, but the money is not forthcoming. Money is as scarce as "bens teeth" down here, the use of the \$30, would have been worth \$5.00 to me for the time they have bud it.

J. P. PARKER,

Alamo, Tenn. March 5th. 1874.

The remedy we should suggest for such cases would be to send directions with the order to have the money returned unless the order could be filled inside of 10, 30, or 90 days as the case might require. Parties who cannot comply with such a simple request are not deserving of patronage, and should be held up publicly to warn our friends and neighbors.

# Reports Encouraging.

AST season was a splendld honey season here. One Italian stock gained 6 lbs. In a day, and built the comb. A new Italian swarm came out June 9th, and filled 9 frames of comb, each frame 10 x 14 outside measurement, and 35 lbs. surplus; the surplus was removed and the rest left for winter, and they are all right to-day; the 35 lbs. were all sold at 60 cts. a lb., giving me eash money \$21.00, how is that for Italians?

Limeport, Pa.

Thos. F. Willman,

FRIEND NOVICE:—My Bees (35 colonies) have all wintered all O. K., 16 on pure loaf sugar. Kept in house built on same principle as yours. Think, the sugared ones, the most dormant. All had a good fly on March 2nd. Hard work to wake up the Italians, particularly those we fed on "sugar syrap," All the blacks I have (5 colonies) were quite measy and hives alightly solled, but colonies strong. I now think that a warm house, (not below 40° F.) "Sugar syrup," and Italian Bees, combined, make wintering a certainty. Ralsed over \$500, worth of houey from 16 colonies, lust senson, and expect to fill the cellar, the coming year. Don't much expect to revolve quite so much can, the coming season as we did last.

Illink the cause of my success is, that I made apiculture a specialty. Do not think farmers should keep bees, any more than run a carpenter's shop, or saw-mill. For a good job, one from in the fire at 100 magiae, Mich, March 13th, 1874.

n time. Dowagiae, Mich. March 13th, 1874.

Now friend H. you have certainly hit the nail on the head in one thing, and by the way it hits us pretty squarely on the head too. There may be a difference of opinion in regard to farmers keeping bees, but 'tis morally certain that one thing done well affords more pleasure and profit too, than a dozen things done in haste and of course poorly done. really believe our present loss in wintering was on account of the "too many irons, we really could not find time to do, what we earnestly insisted on having our readers do, viz: build up our colonies strong in the fall. We have a desperate determination now of giving our whole time to GLEANINGS and the bees, and if some of the pesky "irons" don't get scattered right and left regardless of the loss entailed it will be well if the concerloss entailed it will be-well, if the consequence should be that we don't earn more than 25c. a day, we'll make our expenses come under 24, and we'll just enjoy ourselves, having fun with the bees, and writing letters to such plensant friends as yourself Mr. H. and the rest of our bee acquaintances. We have made our Journal larger this month just on purpose to have a "big talk," without feeling we were crowding something, and to allow our correspondents to compare ideas more freely also.

FRIEND NOVICE:—I took my bees ont of the house March 2nd, and found the entire one hundred stocks I put in last fall all right. That's pretty Tahr for bees that were mostly wintered on untural stores, is it not? You had better look after that "Sngar Diet" or I may be induced to get a wind-mill or two, and start a rival to Gleanings, to advocate "Natural Stores,"

JAMES BOLES West Local Objective Stores

West Lodl, Ohlo, March 17th, 1874.

Three cheers for friends H. and B. If we can't swing our hat over our own success, we certainly will at every such report, and we only hope it may get swung all to pieces, ['cause then we'll have a new one,] during the next month.

# Heads of Grain, FROM DIFFERENT FIELDS.

OULD hives of the "Simplicity Persnasion" do for frames like mine 12% v.14 do for frames like mine 123 x 14, out-side measurements? How would you keep the frames of such size from swinging together, and against the side of the bive, without tacks? How do you manage when your hives get so full of brood by extracting, there is no room for honey? I find the only remedy to be boxes. What per ceut of your dollar Queens may be reasonably expected to be pure?

Wyoning, Wis.

The feature would be seen the light frame of the pure of the pur

The frames would have to be made with considerable care that they might hang plumb, we have used them 12 inches deep and found them to work nicely with nothing to keep them in place, at all. We believe those who handle many frames, very soon reject all nails, staples. and every thing of the kind as too troublesome, besides they are entirely unnecessary with ordinary workmanship. In place of the boxes we would use an upper story, or increase the width of the hive on the New Idea plan. Our \$1.00 Queens should be at least half of them "good for 3 banded bees." In the neighborhood of Shaw & Son, last fall, so far as we can learn they proved nearly all pure.

DEAR "NOVICE":—I have received a specimen copy of your "Gleanings," the reading is good, composition done well, the press work—allow a suggestion in regard to that, a little more "impression" and then "leed" up to your "guides" so as to get a "register" on the "head rule." When I chance to hear of an Aplarian luterested in Printing or vice versa, I claim a right (not patented) to be impudent; the latter "is one of whom I am which" hence the liberty of criticising "Gleanings." Enclosed (you have found previous to the present reading of this sentence) a card that I have just completed for you, accept as a token of appreciation of your efforts to promote ("sugar syrup" and) apienture. Of course they do not come under the head "of its being sincerely warted," (quotation from "Gleanings") but then you can put my name down on the subscription book, and I will pay when I render the "FAT" from the "CRUST" of our old "PI" and self for soap-grease.

Novice can honey be extracted from the comb before it is capped by the bees, and be considered pure, or in other words during the Linden or Basswood larvest, can it be thrown on as list as the combs are filled before the water has thoroughly evaporated, and in such cases is it not liable to sour in the jars? Will it pay a person with 7 or 8 lives to purchase an extractor?

extractor?

Leavenworth, Kau. ALONZO BADDERS, Give us the criticisms by all means, we value them more than we do commendations. know the register isn't good and we keep trying to do it better. It takes "home-made" printers a little time to grow into good ones. Thanks for the cards, we have put your name down of course.

You can of course extract the honey before it has been gathered an hour if you like, and it will be pure honey, but it is thin like sweetened

water and has a raw taste and will most assuredly sour.

If left until the bees just begin, to eap it over it will be all right, and in no danger of souring, and we thus save much labor in uncapping. We should use an extractor if we were never going to have more than one hive of Italians; if we did not make the honey pay for it the first season, we would the second.

In regard to the raw, unripened honey: we think, but are not positive, that evaporation in a slow oven will give it all the good qualities possessed by that ripened in the hive by the bees. An ingeniously written article in the Rural N. Y. for Feb. 14, would imply to the contrary, but we must think it more theory than actual practice. We will try and make some eareful experiments in the matter at the proper season.

I don't think it would be an easy thing to brush the I don't think it would be an easy thing to brush the bees off the combs of a hive running over with my cross hybrids. If I conclude to make an Extr. I will send to you for inside work. Will a molasses barrel sawed in two do?

Gallupville, N. Y.

When the work have a thoular below they

When they are busy gathering honey they seem to care but little about being shaken and brushed off; at any other time, you would be

likely to have trouble.

A molasses barrel will answer every purpose, but it is hard to clean, and heavy to lift around. Honey soaks into wood (unless it is waxed) and we think you will find an Extr., all metal, rather preferable.

Do you think small Queens as prollife as large ones, and small workers as good honey gatherers as larger worker bees? Would not wire cloth do instead of thi, for the bee-feeder? How many holes to the square inch is necessary for the perforated tin? Plense speak of this, nuless you prefer not to give it to the public.

Will it do to use vinegar or cider barrels for honey
If they are scalded with lye water and then painted
over inside with wax and rosin as you describe?
Roseville, ills.

Mrs. S. J. Axtell,
We remember one small Queen that was

quite prolific. At some seasons all Queens are small, yet we think those uniformly large, generally most prolific. We have one or two Queens that reared small bees, and although well marked they did not seem so industrious as others, and were never very profitable stocks. About perforated tin-see page 34.

Wire cloth will answer but it is liable to get bent out of shape easily, and cause the feeder to leak. All we know on Bee-keeping or in fact any thing else is cheerfully at the service of our subscribers; we only regret our inability to give better advice on many points.

We should have no fear in using the barrels if they were first made dry and then perfectly coated with wax. They must be very stout, and should be iron bound for honey is very

I ree'd a letter from my wife in III, that one of my Imported Queens was dead, the combs were as clean as they were in the summer, no signs of any disease, but a mouse had caten in atouc of the mortises in the top bars and had caten all of the bees on the bottom top bars and had caten an of the bees on the bottom
board, but had not eaten any of the combs, there were
not 12 bees alive, now did that mouse kill that swarm
or did he cut the bees after they were dead?
Yours truly, D. A. BROCKWAY,
P. S.—They had lots of Sugar Syrup left.
Mice raise "hobb" with our surplus combs

when any honey is left in them, but we have never known them to kill bees; still such reports are current. Wire-cloth is a preventive.

DEAR NOVICE:—I am an amateur Bee-keeper and and honey raiser, (if amateur means for the love of the thing.) with 20 swarms In movable frames. I was humbingsed into buying a Patent hive some four years ago. Afthough the hive is a good one, the "patent" part is of no use to any one not a "bee master." I now wish to seft full colonies, but the patent man lives near, and warms all who wish to purchase, that they must first buy a \$5.00 right from him, and so my neighbors with American and Langstroth hives, sell bees and I self none. This is a feature of the patent hive business, I would like you to suggest, in Gleanings a remedy for.

Pay no attention to the patent, when you

Pay no attention to the patent; when you wish to sell bees tell your purchasers you will stand between them and all trouble, and if any trouble is made send us the date and name of the patent hive. If we cannot find frand and humbug in the claim, somewhere, we really believe it will be the first patent hive we have

overhauled that was not an empty pretense.
Is a honey quilt, of two thicknesses of ducking,
warm enough for spring months, and out-door wintering, with no other covering except caps?

We use batting between the two always. We are at present inclined to give the straw mat the preference for winter and spring; with a loose cover over the mat to keep out rain; with straw first, and then coarse stable manure to cover the whole hive, we have something that eomes very near straw hives for wintering. We have yet to learn of an unfavorable report from bees wintered in the old straw hives.

My experience confirms what you say in regard to sealed brood being in no danger from careful extracting, but eggs and larve are "slung" for all they are worth.

With a proper Ext., there isn't a particle of need of throwing out unsealed brood. We never knew eggs could be thrown out. Had'ut you better let your wife turn it? We fear you have too much strength to be trusted with such work.

My clipped Queens, for some reason, are soon sumy cupped queens, for some reason, are soon superceded. Others may be as short lived, as I have no way of marking except by clipping. I never have seen a clipped Queen over 2 years old, although I do not doubt that others have.

We have given the matter for several years careful attention, and find short lived Queens and long lived Queens both among the clipped and unclipped in such equal proportions, that we feel sure it has no other effect than to somewhat mar their beauty.

Is Quinby's Queen yard practicable? I do not find it so, as the bees cluster and fill it, and the Queen es-capes by crawling over the cluster.

Many things contribute to make it a failure, yet some report quite favorably in regard to it, when they depend on natural swarming. As for ourselves we should find such an obstacle always in front of our hives, an intolerable unisance, and to those who are in the habit of walking among their bees as much as we do, the danger of being constantly liable to put "ones foot in it" might be provocative of a tendency to profanity. Again, should some of our lady visitors make an ungraceful stumble and land in the "Queen-yard" we might find our profound explanations unpleasantly interrupted.

How am I to make a cool dark dry place in July and August, to store comb, and honey in frames?

Don't have a cool, dark, dry place at all, but put your combs in a hive that will shut up tightly, (we know the patent ones never do) and you can keep them safely as long as you like, only observing this eaution: Combs removed from the hive in warm weather are liable to contain eggs of the moth; therefore they should only be removed in the fall when it is cool, and if kept shut up they will be safe until needed, or during all the next season if you choose. They never mould unless wet or damp. Freezing, always kills all eggs of the moth as has been abundantly proved. We keep our hives containing empty combs in the barn. As for comb honey; extract the honey and put the combs back in the hive.

and pnt the combs back in the hive.

I want some idea of a Queen Nursery, without buying another "patent." I once owned half a Peabody Extractor, but contrived a rude one myself, that works far better, and sold my half of old Pea, for 58,00, twice the cost of the one I now have. I use a tent to extract in, and winter in a pit. I depend on the extractor for honey, and artificial swarming for increase. Shalf try the New Idea pian next season. I have tried the two story plan, in comexion with Hosmer's, "Feeding to stimulate breeding," and failed, on account of tendency to swarm us soon as strong. I would give something to know how to certainly prevent a strong colony from swarming. When you get the Photo of my aplary (if you ever do.) you will see my wife in Bioomer's, helping me handle the frames and so on, as fearless as myself, although two years since she was as much afraid of a bee as of a rattle snake.

Yours truly,

sunke. Yours truly, R. L. Joinen, Nothing more than extracting is needed to prevent swarming. 'Tis the rarest fun for us to have a colony so strong they begin to think of swarming; give them empty combs one at a time, and room as fast as they can use it, and your trouble will cease. Tell your wife we are proud to learn there is at least a few who dare be useful by their husband's side. Perhaps there are more than we know, but too many are afraid of stings, or rather they think they are.

I have 6 colonies of bees all in movable comb hives, and 4 different kinds of hives. Now I want to get a hive that is right and stick to it, I am tired and sick of so many kinds. I cannot divide my bees for the frames are all different sizes.

Tecumseh, Mich.

We wonder how many of our friends know from past experience just how "Comfort"-able it is to have four different kinds of frames and only six hives at that. We wonder if our frlend wont go for a universal Standard.

Messrs. Eds. GLEANINGS :- Piense give us the best information you can in regard to uniting different colonies of bees that stand at a distance from each other.

Dunlap, Ill.

D. G. Hernyer, Dunlap, Ill.

There are several ways, but all troublesome we believe. As a general rule we would try and build up weak stocks before winter that there may be no occasion for uniting. Notwithstanding what has been written about two eolonics united, consuming less honey than when separate, such has not been the case with us, but quite the contrary, and besides the double colonies were no better in the spring than the rest. Moving the two stocks gradually near to each other, is too laborious and slow, when the distance is great, or there We think the readiest way is to are many. wait until the weather is tolerably cool, so the bees do not fly; smoke both and lift the combs and bees from one into the other, rejecting such combs as contain least stores and pollen; if no warm weather ensues for a week after, they are all right, if suitable weather for flying should occur soon, fasten them in for a week, or what is better put them in the cellar for that length of time.



# DEVOTED EXCLUSIVELY TO BEES AND HONEY.

Vol. II.

MAY 1, 1874.

No. V

#### HOW TO CONDUCT AN APIARY.

#### No. 5.

N these papers we shall only cousider such a course of management as will probably give the largest crop of honey; for rearing Queens for the market will have to be considered rather as a separate department, and will necessitate a somewhat different mode of management.

In our Northern localities, we believe there is seldom enough honey gathered to render extracting necessary in May, and the large amount of brood under way, requires an amount of food that Is many times overlooked.

We would make it the most important business of the month to see that every eolony has at all times an abundant supply of food. We have sometimes on examination, found what we supposed a great plenty, but in a week more, have found brood in all, or nearly all the combs, and not a cell of houey to be found any where. Of course brood-rearing had to wait until some could be gathered from the fruit blossoms, and at evening we would find a tolerable supply scattered among the brood, but the next morning we would find them once more entirely destitute. Should bad weather occur at such a time, a careless Apiarist might never guess what it was that so suddenly cheeked what had been one of his best colonles; in fact we have known bees under such circumstances, starved outright, in the month of June.

Perhaps next in importance, is inserting a clean empty worker-comb in the middle of the brood nest, as often as the colony will bear it. To determine this, requires some indement, and much mischief may accrue from going too fast; a feeble colony that have just begun to get up a tolerable cluster of brood, would find their "house-keeping arrangements" upset to such an extent by this proceeding, that it might almost spoil their value for the scason. You had best make a few careful experiments; if at the end of a week you find the new comb nicely filled with larvæ, and none of their older brood left too much exposed, if the colony is strong, they may have auchter comband so on. One great point to be secured, is to have combs of brood all nearly of an age, that the Queen, nurses, etc., may proceed with their separate duties as we would hoe a field of corn, instead of searching all over the combs, to see what cells need attentiou.

This is the great month in the Northern States for transferring, as all agree we believe that the most favorable time is during the bloom of the fruit trees. With all deference to good authorities, we would advise to omit the drumming out process. It seems to us that it only needlessly bothers the bees, and yourself also. In our opinion, by far the easiest, and safest plan, (see Vol. 1, for May,) is to give the colony one, two, three, or more good combs of brood from other hives, and then distribute the transferred combs in place of these, that the work of patching up may be distributed among several, and our transferred friends will have nothing to do but to reconcile themselves to a new hive having a few new combs perhaps, among their own.

As we have often before said, before you commence transferring fix your new hive nicely in the place the old one occupied, and he sure you pack it all around with saw-dust, in such a way that the Queen and bees cannot make a mistake and erawl under the hive instead of into it. We feel sure, that any of our readers, ean work without any danger whatever, without veil or gloves, if they only use plenty of smoke to start with. After the bees are subdued, get out a sheet of comb as neatly as you can, and shake, or brush off every bee at the entrance of the new hive. If they dou't go in at once, never mlnd, they wili as soon as there is enough of them, and if a comb of brood awaits them, they will soon be all right. If you have no other movable comb hives, you will have to get a piece of comb containing brood, transferred as soon as you can. When you have taken all the combs out of the old hive, you will find many of the bees, and perhaps the Queen, clustered on it, or in a corner; shake them before the entrance; clear up every thing and you are done. If robbers begin to trouble at any stage of the proceedings, cover up every thing except the comb you are cutting, with cloths; if you are much of a novice perhaps you had better do this auy way. The greatest danger from stings will be from robbers.

We consider transferring, well done, only when the bees keep right on with their work,

bringing polleu, etc.

The whole operation should not oecupy, to exceed one hour. We presume many of our friends will have colonies this month that will need more room than a single story will afford, and the following is just at hand.

If an Extractor is used would it be better to use Hives single or double? Atwater, O. April 7th, 1874. JAS. MATTOON.

With the present heavy testimony in favor of extending the combs horizontally, and the greater convenience in handling the combs for

the Extractor, we would advise the double width hives. If you have two empty hives, make them into one of double width as advised on page 43; lift the combs of the eolony iuto this; keep building them out by inserting eombs as before, and proceed in the same way with the rest, as they demand more room. you have the Simplicity hives you can use the upper story as well as the lower, for they are precisely alike; but with the ordinary two story hives 'tis more difficult; however, if you have uo money to spare for ucw hives, and plenty of time, it may be managed, but we fear they would present rather a sad appearance.

In regard to the manner of feeding, we do know that it matters materially. To go around to 50 hives daily is quite a task, and one we cannot really recommend unless the Apiarist has nothing else to do. We last scason arranged cloth feeders in every one of our hives, in such a manner that they could be filled from a Coffee-pot, without opening the hive; but even theu 'twas a "back breaking" routine. If you have no sealed combs from stocks that have died, (we are very fortunate in that respect) give them a tea-kettle feeder full, during a warm spell and then close down the quilt again. It will do no harm if you keep them supplied with an empty comb, at intervals.

Feeding in the open air, is by far the least trouble, and is, we believe superior to all other methods of stimulative feeding, providing you have no neighbor's who keep bees, except such as will join in and feed too, or at least pay their share of the necessary expense. See "Open Air Feeding" on another page.

#### THE STANDARD HIVE.

RIEND NOVICE:—As you are agitating the hive question somewhat, I will add my mite.

question somewhat, I will add my mite.

I have nsed several long hives the past season and like them better than any other hives I ever used, the most of mine are 30 inches long inside, in which I can place 20 frames 10x 14% inches, or I can insert fewer frames and place 6 small boxes on either side.

I think this size large enough for any swarm, I have I dea, and others with the entrance in the end as in the New Idea, and others with the entrance in the side, and prefer the latter. Last season a medium sized swarm in one of these hives filled 24 boxes after June 12. Swarms wintered on their summer stands in these hives, and on natural stores gathered early in the season, wintered splendidly; while those swarms on which the Extractor was freely used, and artificial swarms made late in the senson were very badly affected with dysentery in any kind of hives.

swarms made late in the senson were very budly affected with dysentery in any kind of hives.

Knowersville, N. Y.

We really cannot see why, the entrance may not as well be in one part of the hive as another than the senson were very late of the hive as another well as the senson were that he having er, and in fact would suppose that by having it at the sides and thus saving them the task of going some little distance on foot, there might be an economy of valuable strength. However, as we have made no direct experiments of the kind, we of course should not decide hastily.

Onr bees wintered well, but the spring is hard. We are doubling up considerably—killing the poorest Queens. We have 135 colonies, use combs II inches deep by 14 wide, hive 14½ from from to rear. We use division board—hives hold from 9 to 20 frames. Border Plains, Iowa.

Doubling up our own colonies might have saved some, but as some that we should have doubled are doing fluely, and some that we should not, have done badly, and as there is considerable risk of having Queens killed by

so doing in the spring, we can hardly think it advisable after all. Our friend's frames are just ¼ inch longer than onr Standard, and ¼ less in depth. Such is, not life, but, American Bee-keeper's frames and hives; all good without doubt, but uo uniformity.

Think I have now decided to retain my Am. frame, after ripping of the projections of top bar with Buzzsaw, and put them into a hive like your "Standard." I lave made and sold the Am. hive for 3 years in this vicinity, and that would be a strong reason for me to still use that sized frame,

Farina, Ills. T. P. ANDREWS. Had we the Am-frame, 12 x 12, we think we

DEAR NOVICE:—My frames 12 x 12 are not divide l by cross bars, as you suppose in your answer in GLEANINGS for March. They are my old Debeauvoy's frames mended a la Langstroth; therefore no wool across the combs interfered with the laying of the Queen, which was greatly superior to that of any Quinby hives.

should retain it.

Quinby lives.

I see that you now think the size of the new Adalr sections better than that of the Langstroth frame. I would prefer larger frames, especially if I lutended to dispense with two stories. For ease of management it is more speedy to lift 8 frames than 11, let me also tell you that a Quinby frame, when full, never weighs more than 10 lbs., so that a child, or a young lady, can very easily transport them. If I were to start an aplary, I would prefer frames 16 inches long and 12 wide, inside measure, and I think that if we had to establish a Standard that measure would be the best.

the best.

In the March number (1873) of the French Bee Jounnal, L'Apiculteur, a bee-keeper is said to have counted more than 5000 eggs deposited daily by a Queen. The hive used had 14 frames sixteen inches both ways.

The nive used had 14 frames sixteen inches both ways. I have never been able to get more than 3700 eggs daily, I think therefore that the large surface of the combs had something to do with the increased laying. Who will decide about the American Standard? My opinion is that we will have to get the advice of those who have used several sizes on a large seale; and not to indicate the Italian bec-keeper's, who were so hasty to that matter. in that matter

Hamilton, Ills. CHAS. DADANT.

We have no doubt but that a large comb surface is an advantage to a heavy colony, but if the combs are carefully watched and an empty one interposed at the proper intervals, we think the difference would be but little. If we use a comb much broader than 1334 (our standard) 'twill be difficult making the cover and bottom of a single board; also with the long hives we shall, when operating them, have to stand at the side, and to get hold of both euds of the comb will, If the comb is very broad and heavy, oblige us to stoop over in a way that is very tiresome. In calling this our Standard, It is not with the expectation that all will adopt it, only that some who can commence as well as not on a "beaten track" will do so. Orders are sent us for frames of a multitude of different dimensions, but there seems to be more of a disposition to centre about (asit were) 11½ x 13¾, hence we adopt that as a standard. If the mass of Bee-keeper's deman1 a larger one for a Standard, of course we shall

agree to lt.

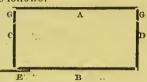
The Langstroth and American seem to be most in use, but they are so unlike, that the use of both, in an apiary makes much confuslon. As we have given several appeals in favor of a larger frame, we will listen to one of the advocates of the other extreme; and friend Davis is a successful Apiarist, so far as honey Is concerned at least, as we happen to know.

Hurrahl our bees are all right with two exceptions, one lost its Queen, and the other is rather light. This is better than 1 ever wintered before. By the by 1 have wintered one Queenless stock, in tip-top condi-

tion, they have raised a Queen this spring. My frames are 11% x10 inches, this will be my Standard size hereafter as it gives me power over my bees that a longer cannot give, it also gives me he New Idea principle, which is old to me, let Adair say what he pleases. I will use it with the entrance at the side of the hive the whole length; which will what we give above, makes the best ventilator in the world. Bees live longer in my hive than in any I ever used before. Delhi, Mich. April 10, 1874. J. L. DAVIS.

### OUR STANDARD HIVE,

we make as follows:



The diagram above, is drawn on a scale of % inch to the foot, and the lines are supposed

to represent a section of the % dressed, boards. A, is the cover 16%x30; B, bottom-board 15%x28½. The one inch less in width, is to allow the side boards to lap over and cover the joint in the same manner as does the back end board as seen at D, for the lower edges of both back ends and sides, are rabbeted out 1/8 x 3/8. Before nailing in the bottom-board the front end is to be beveled as seen in diagram, and theu it is to be uailed very securely to door-step E, which is 1638x6, and beveled on its front edge, also. The front board C, is like D, except that it lacks the rabbeted edge, being therefore ½ less in width, that is, 15½x-14½ in width; this allows the triangular blocks, when placed on the door-step, to be pushed back under the edge of C, until they strike heads against the above the other wints. strike back against the sharp edge of bottom-board B. E, is to stand directly on the ground, or at least on a thickness of saw-dust sufficient to keep down weeds, and to keep the rest of the hive up to the same level, we uail strips  $1x7_6$ , clear around under the bottom-board, and just flush with its edges. We hardly used repeat what we have said, about rabbeting clear around the under side of the eover, aud mailing in the square frame, made of the strlps G, G, and similar ones sawed off the sides of the hive; as this has been given in previous number. The manuer in which the cover shuts on a bevel to exclude rain, is seen between G, C, and G, D. We prefer the entrance below the top surface of the bottom-board, because it

inquiries have been received like the following: iu making Long Hives to hold 20 or more frames, if In making Long Hives to hold 20 or more trames, it the bottoms are nailed fast will they not need an opening in the bottom edvered with wire cloth for ventilation? or rather how much ventilation will such hives need in hot weathor, whether nailed fast to bottom or not, and standing in the snn?

Manulapan, N. Y. Mar. 30, 1874. Chas. H. Rue.

thus excludes driving storms and wind. When

the blocks are in piace, 'tis true some rubbish such as dead bees etc., may accumulate behind them; but if they are occasionally removed as

they should be, this will do uo harm. Several

If the combs are kept under careful supervision as we have advised, we think no more ventilation will be needed than is given at the capacious eutrance, when the blocks are taken away entirely. We should never think of allowing a strong stock to remain entirely unshaded. We think examination will show that the ventilating holes covered with wire eloth are invariably waxed up by the bees very soon, and are therefore useless.

Any opening not covered with wire cloth is used as an entrance, and when closed, makes them trouble and confusion. It is our opinion, that too unuch ventilation, has produced more mischlef on the average, than too little. We would advise those who are in doubt, to try both extremes and see what the effect is on brood-rearing. Keep the hives shaded in the hottest weather, by all means, but until about the time your grape vines leave out, we think it almost impossible to give them too much of the sun's heat; and also almost impossible to give them too little ventilation.

## Reports Encouraging.

Y bees are all right so far, I have not lost a single colony from 86 which I am wintering, all on Buck-wheat honey. I sold 1100 libs of honey last year at an average of about 20 cts. per pound, and increased from 49 swarms in box hives to 86 in "Shuplicity." Castalla. O. April 1st. N. E. PRENTICE.

My bees are wlutered all in good condition, except the one which had dysentery; it being Queeniess, and another that is a drone layer. They have all wintered on sngar-syrup not sealed, and fed all through the wluter; perhaps no man has ever disturbed his bees so minch; they cleansed, the 15 of March, I shall feed on sugar forever. Wequlock, Wls. J. DUFFELER.

Onr 40 stocks are now reduced to 34. Fortunately we have lost but one choice Italian as yet, and even then (April 9.) we found the Queen alive on one of the combs, and surrounded by a handful of her bees. We removed the comh, bees, and Queen, and carefully inserted the same in the center of a stock of black bees that had been Queenless two or three days. Perhaps this was an act of andacity, but to-day her new subjects resimed work on middlings, and an examination inside the hive revealed Her Royal Majesty at her legitimate business—O. K.

Koshkonong, Wis. April 14, 1874.

D. P. Lane.

DEAR NOVICE:—Cau report the snecessful wlutering of 197 colonies bees. I removed the caps on upper story leaving top of hive open; with L. hive set aside caps, and leit open two or three holes in housey-board, closing all downward ventilation. Wintered in cave and cellar, and found all in good condition upon setting them ont quite recently. A neighbor put away 66 swarms within few rods of me in same way, only leaving downward ventilation, also, all wintered well and seem to be in good condition now.

Onawa, Iowa. April 8, 1874.

AUO. CHRISTIE.

All of my 90 colonies of Bees came through the winter safe, and some of them strouger than common at at this season. I had drones flying on the 19th of this mouth, three weeks earlier than I ever saw them before. Cornersvillo, Tenu. March, 1874. ELI COBLE.

Bees have wintered finely on natural stores, iost none—no dysontery—winter very mild. They gathered pollen in Feb. from aider.

Mitchelsville, Tenn.

II. PEDEN.

Bees in the best condition. All alive—no dysentery, and working on the fruit trees as only the industrious been can work.

DR. W. P. MOORE. Richland Station, Tenn. April 6, 1874.

Took out my bees Tuesday. Lost two; the baiance, 46, consumed five and one-third lbs. honey on the average, per colony, for four months.

J. CRALL.

I did not get my bees out of the cellar until the 10th. My 34 stands and 5 of my nelghbor's (put Into my celiar) came out all right. Six of my four frame Nuciel were all right—two had run ont of honey and starved. Grandvlow, Iowa. Apr. 16, 1874. W. J. RONALD.

EDITOR GLEANINOS: We have taken away the ma-uure, so that the sun may shine directly on the hives, (as you have so often recommended) and our twenty two colonies have noarly all been bringing in poller for the past two days. Some of the strongest, (!) have actually got brood in three combs. April 21st. Norice.

#### PROBLEM NO. 21.

 WISH you would include in my former order a box or hive, whatever you may be pleased to call it, for earrying frames of honey from the Aplary to the Extractor and back. I think on the whole it will be best to have two small ones, rather than one large one—to hold five frames each. I want the tops so they can be fastened tight, with the idea of having a handle in the centre of each cover, so as to entry them like two palls of water. I think perhaps it had better have a movable bottom-board to be fastened by, hooks, for convenience in cleaning it of the drippings of honey. You must have the idea now of what I want and you may make to sult yourself. Make them, of as thin lumber as you can and have them strong enough, so that they may be as light as possible. For the same reason they had better be made of white pine, or basswood. box or hive, whatever you may be pleased to call ine, or basswood. Cedar Creek, N. J. \*E. KIMPTON.

Our friend seems to have a clear Idea of what is wanted. At first we thought of making something such as we described in Vol. 1, page 52, but after studying on the matter, finally had our tinner make two, square, tin pails, with a ledge to hang the frames on, and a hinged cover that would open under the bails. Mrs. N. says nothing can be cleaned of honey drippings so readily as tin, and as they were soldered tight they can be used to hold honey etc., in an emergency; if properly cared for they would last a life time. On the other hand, although they were made of the lightest tin, with cover and all they are rather heavy, and still worse the expense of the two was about \$4.50. Have we no basket makers among our readers who could make us a light square basket for the purpose?

A shallow tin dish might be placed in the bottom to catch drippings, and a cloth to be thrown over the top, could be sewed to the back edge. The handle should be very high to allow of lifting out the combs readily, or might be made to thru over; we rather think the former, as it would not necessitate so much stooping. Perhaps something arranged entirely of wood and cloth would be the thing. Who can get up the lightest, strongest and cheapest implement, and one readily kept

clean, to hold five combs?

### BOTH SIDES OF THE QUESTION.

ESSRS, A. I. ROOT & Co.;—We did not intend our communication for publication. We have discovered that some of our hives to which we had given Italian Queens last summer, contain this spring, crossed Queens. Our maive Black Bees very seldom east swarms in the fall, and hardly ever easting more than three swarms. Some of our hives had sealed droue brood the I, of March. The expenses of our Apiary are as follows:

Langstroth's book on bees. \$2.00
4 lox hives. 12.00

4 fox hives. 22.00
30 L. hives, (cannot be made here less than \$5.) 150.00
Painting, Hinges, and Locks. (Local necessity.) 12.00
3 Italian Queens. 11.50
Royalty.

Realized only 450 lbs. of honey, we used the Honey Extractor on 20 filves last June, the average yield, one gallon to the hive. We extracted all the combs—have garion to the inverse we extracted at the combination bought no patent fives. So far as we have read Apiarlab writers, we selected the best five—our error Is in changing the Native Bee for the Italian.

Macon, Ga.

J. A. NELSON & SON.

FRIEND NOVICE:—You are right in your statement that Mr. Quinby asks two prices for his bee hives, but you certainly put the average very low indued. Mr. Quinby says, "it is safe in a good season to calculate on an average of one or two hundred lbs. of box honey, or two or three hundred when the

combs are emptied with a machine." An average of 200 lbs. box honey I should think too much, but it I can't average 150 lbs. comb honey In small frames placed in the large frames at the sides of the brood combs (with black bees too) then it is because it is a poor season, tho average of Extracted I will put at 300. Last year was about an average season here, not a good season by any means; clover, Poplar and Bass-wood yleided very little honey, Buck-wheat and Golden rod did not do very well. I commenced the lirst of June, with ten weak stocks in box and American hives; transferred them to Simplicity hives, frames about 10 deep by 14 inches long, inside measure. I averaged 200 lbs. ext'd honey, at least ½ of my honey was Buck-wheat and Golden rod. Besides the 2000 lbs. of honey, I increased to 30 and saved 27, three of them swarmed before I commenced using the Ext. and flew away, so I lost at least 300 lbs. there, besides the bees; so much for box and Am. hives and poor management, but I've got my eyes open now, though not so wilde open but that I intend to see more and learn more of this interesting and prolitable pursuit each year, as long as health permits mo to keep bees. I suppose the seasons have been so very poor with Novice of late, is one reason he is so "modest" about giving the average yield of honey per stock at 50 lbs. I know we should not expect too much and onght to be satisfied if we only average 50 lbs., but Novice certainly can average 300 lbs. ext'd honey in a good season; if he can't then the trouble is in 4e. Queen, at loon't know what else. I only had one Queen that I could call poor, and I got one hundred lbs. of honey from it, (the stock of bees) and a lot of drone comb mid drones in Angust. Theory says bees build less drone comb with young Queens than older ones, but I have had the most drone comb with young Queens. New Buffalo, Mich. Mar. 10, 1874. R. S. BECKTELL.

### OUR OWN APIARY.

LTHOUGH the weather has been quite eold, and the season backward; although we have not as yet, seen a bit of natural pollen, and we never remember a season before when it was not gathered abundantly by April 1st; and although we have lost 27 colonies and have only 26 remaining, this 13th day of April 1874, yet we cannot give up that bad weather should be any excuse for such losses. We have nothing to reproach ourselves with in the way of carelessness or negligence this spring; but on the contrary, have done the very best we knew how.

Many are the kind letters of sympathy we have rec'd, (and we heartily thank you all for it) and many are the reasons suggested for their dying; a few have said it was just as they expected, when we started into winter with so many weak colonies. But the weak colonies, some of them, are doing well, and our strong ones have perlshed, why is that? Some have suggested that the manure kept them too warm; such may be the ease, for we often flud only a dozen or two bees guarding the entrance, and the dead colonies are found almost invariably to contain only a very small cluster, scarcely larger than an egg, or an apple, and strangely we have not found a particle of brood in any of those deceased. They died in the midst of clean white combs, and sealed stores. No trace of dysentery.

It is true some of the strongest have worked on the meal during weather that bees do not usually fly, yet we have seen no bees dead on the snow, and they have flown many days

when It covered the ground.

We do not believe artifleial heat alone, will help the matter, for to test it more carefully we placed a Queen with what was left of her subjects-just 82 bees in all-in our Lamp Queen-nursery of last year, and they have now

been there a week. We have kept the heat constantly at a summer temperature, and the bees and Queen erawl to all parts of the live at pleasure, but there are no eggs, and no brood-rearing; something besides warmth must be wanting. To be sure many will say, she can't lay eggs, and brood ean't be reared without more than eighty-tero bees; but why? her whole hive is kept as warm as the centre

of a populous colony in June.

Again; the eombs of the hlves from which the bees had died, almost without exception were destitute of pollen, see problem 12 and 13 last year. No one has yet applied for the \$5.00 although several have suggested, eorn-starch, corn-bread soaked in honey etc., etc., and onr "Ambrosial" friend Flick gives to B, K. M. a recipe for "bee food" composed principally of corn-starch. As it is not so very much trouble to try the experiment, we made a small heap of corn-starch, in the rye and oat-meal in our feed house, and they seem to dislike it more than any of the various substances with which we have experimented. We wonder if it ever occurred to Mr Flick and some others, to try whether their receipts are valuable.

How can we supply bees with pollen in the spring, that brood-rearing may proceed when the weather proves unfavorable? Have some of our readers a Green-house or conservatory, and does any one know of an experiment ever having been made to see if bees will fly out and regain their hive again, in such a place?

If so, they would certainly work on rye meal, and thus enable us to be independent of bad weather. The bees we have lost this spring would pay for one large enough to make the experiment, and if it cannot be demonstrated otherwise, we have a strong faney to see for

ourselves what ean be done.

Some friend suggests that a field of hemp would furnish pollen enough, and thus enable them to keep a supply over winter. We strongly suspect this lack, is one of the drawbacks in our locality, and may possibly be in others also. Friend Hosmer says in N. B. J. that he thinks the great advantage of the Western over the Eastern States for bee culture, is on account of the greater abundance of pollen yielded.

April 16th—A part of the day being somewhat warm, a little natural pollen was gathered. Two more colonies are dead and no favorable change in the weather yet. After the 82 bees in the Lamp nursery had dwindled down to nine bees, we sent them Queen and all in answer to an application for the "eheapest queen we could furnish, hybrid or otherwise." "The our first sale of queens this season and bids fair to be our last also.

April 20:—Although yesterday was Sunday, as it was the first really fine day since March 2nd, we, and "Blue Eyes" anxlously watched the reunants of our Aplary's laborers, as they become the state of t

brought in the different colored loads of pollen. The manure had been removed from a few of the hives, and we were curions to observe which would commence work soonest. Sure enough, the warm sun shining directly on the tops of the uncovered hives, sent them to the fields, an hour earlier than the rest; the manure having the same effect as double walled hives, since fermentation has ecased.

Several more colonies were found so weak that they had to be broken np, and worse than all the rest, our Argo Queen is amoug the misslng; we would not have sold her for \$25.00.

We noticed about church time, that the bees were very feebly resisting the attacks of some black robbers; and, although they had been working briskly on meal but a few days before, an examination showed very few bees, and no

nueen.

Another colony about the same time, showed symptoms (individual bees whirling around excitedly, at the entrance) of swarming out (they have, once before) although they had a fair number of bees; these, were given a comb of eggs and some pollen from another, and after that, abandoned their project. All the stocks that have failed were found nearly or quite destitute of pollen, and none contained eggs or brood. The manure answered perfectly in keeping them at an even temperature, above freezing, and vegetation was found to have started briskly, abont and beneath the hives, when the manure was removed. The few lines below just received from Mr. Curry, will probably explain why the manure answered, in place of warm weather, in his experiment, and has not in ours.

Pollen seems rather scarce, on account of the severe frosts I suppose. I am not sorry, as it gives them a chance to clear out the old pollen from the combs.

We eannot remember to have seen any old pollen in the combs in the spring, for the past three seasons; last season we looked over more than a hundred combs before we could find just enough for a simple experiment. What shall we do for pollen when we have weather like that of the past six weeks?

that of the past slx weeks?

P. S.—We didn't go to church last Sunday, and it is to be feared we were not in a very "devotional" frame of mind either, at least a

part of the day.

### CHEAP PAINT FOR MIVES.

You advocate all economical articles and processes, what do you think of the cheap paint recipe given in Winder's circular? I find the same recommended in Robinsons "Facts for Farmers."

J. H. Martin, Hartford, N. Y. We think of it as we do of many other re-

We think of It as we do of many other receipts given by thoughtless people because they had "heard 'twas good" but never once thought of trying It themselves. As a white-wash, It may do very well, but if we really would protect lumber from the evil effects of moisture, the wood must be thoroughly treated with good oil paint. The cheap paint will not stick unless It be used on rough, undressed boards, and we do not think it possible to make hives smillelently accurate of such material.

We once made 50 such and nsed them several years; the paint adhered very well, but the boards warped and drew the nails out, nearly if not quite as bad as if unpainted. After they had been in use three or four years, we in desperation nailed them over, and then wasted more good oil paint on them in the attempt to make the old weather beaten wood impervious to water, than they were all worth. The Simplicity style of hives, requires but little paint, and their form offers every facility for giving them an additional coat whenever they may need it, as they remain on their summer stands. One coat at first, on new hives will do very well.

## Gleanings in Bee Culture,

Published Monthly,

A. I. ROOT & CO., EDITORS AND PROPRIETORS MEDINA, OHIO.

> Terms: 75c. Per Annum. For Club Rates see Last Page.

## MEDINA, MAY 1, 1874.

A. B. J., for April earne to hand March 31st; B. K. M., April 5th, and N. B. J., April 18th, all in good time, and all excellent.

Up to this date, half past one o'clock April 27th, the World has not yet shed its "mellow" light (as B. K. M. has it) upon us.

WE omitted to mention that the dimensions of the side boards for the Standard hive, were 15x30, that is, the dimensions of the board before the strips are ripped off to go under the cover.

WE learn R. Wilkin, family and employees, have removed from Cadiz, O., to Oskaloosa, Iowa, where they expect to engage extensively in the honey producing business. May suceess attend them.

WE would refer the many who write to us for tested Queens, to Mr. Cary, whose advertisement will be found in this No. only one of the pioneers in the business, but so far as we know, has been prompt and trustworthy in all his dealings in years past.

WE have just sneeceded in making a Queencage both for shipping and litroducing. 'Tis all of metal, is stronger-than the wooden ones of last year, will hold securely an abundant supply of food, requires no paper stoppers and and can be closed and opened quickly; yet has no loose cover, nor anything to get lost. Diagram and directions will be given next month, that will enable any timer to make them.

Price 10e., or \$1.00 per doz. By mail, 2c. extra.

So invariably do we get both favorable and unfavorable reports, from almost every locality, we hope we are excusable for concluding that there is no very great difference in locality after all.

If any thing, our Sonthern friends seem a little behind, but we are inclined to think the main trouble is, that they have not yet given their bees a chance. 'Tis not unfrequent to hear of an enormous yield in the mldst of a neighborhood complaining bitterly of bad seasons, and nothing for the bees.

Therefore be of good eheer, for "we shall (most assuredly) reap if we faint not."

## HOW TO WINTER 100 COLONIES WITHOUT LOSING ANY.

HERE! there! don't be hasty, we know very well we ean't do it, and therefore take pleasure in introducing to our readers Mr. James Bolin of West Lodi, O., who will occupy the "Editorial Chalr" (not a word of remonstrance friend B.) while we-ahem, sit by

Novice while he interrogates.

FRIEND B., we shall recognize you as undisputed anthority, on the ground that "the proof of the pudding ete", and would like to be inquisitive somewhat. In the first place were your colonles all strong in the fall? how many combs would there be bees on

in Oct?

No. Some of them were what I call weak, others very strong. The bees occupied from four to seven spaces between the combs in comfour to seven spaces. mon eolonies; and I had a few extra strong stocks in which the bees covered all the combs.

These extra eolonies had been trausferred, on the approach of winter, from double width hives containing 21 frames, to common ones having 10 frames. There were more bees in them than was desirable, but not liking to kill any of them, I concluded they might take their chances. The result was, a great many more bees died in them, and the consumption of honey was much greater than in the ordinary swarms.

Did they store honey in the fall, and how late?

They stored honey from a piece of buckwheat I had sowed, until the latter part of Sept., and from golden rod and other fall flowers, from the time the grass-hoppers disappeared, until we had severe frost.

Are there any elder mills in range of your bees? There is a small mlll at which some elder was made, a trifle over half a mile from here. The nearest large mill is about two miles

away.

How thick are the walls, and what are the dimensions inside? how are the doors fixed?

The walls are fourteen inches thick; two thicknesses of inch boards and twelve inches of sawdust. Two floors with nine inches, between them, and there are ten inches of sawdust on the eeiling overhead. Dimensions 13 x 21 feet, and 8½ high inside. A window in one end, with sash and glass, and a blind both inside and ont, thus having two dead air spaees; double door in the other end, with 12 inch space between.

How are the ventilators arranged?
There is a ventilator ten inches square, through the floor, near the center of the room.

It is closed by a slide that can be opened or shut from the ontside. In the house it is covered in the winter with a box, made by nailing three boards together, that extends almost the length of the room. This is placed loosely on the floor, with the open side down over the ventilator; and the sides of it are bored full of holes to distribute the air equally. In the summer it is put in the attic out of the way. Over head there are two ventilators, six inches square, that extend from below the ceiling to three feet above the peak of the roof, and cov ered so as to exclude light and rain.

Did the temperature ever get down to freezing in your hives?

No; thirty six degrees was the lowest point reached, and the temperature varied from that up to fifty degrees. I would keep it at from forty to forty two if I could do so.

How are the hives prepared and what kind? Langstroth if we remember.

In preparing for wintering, I aim to have empty comb near the center, for the bees to cluster in, with their stores at the sides and back end of the hive. When handling the combs in the fall, I generally cut holes in them, about one third of the way down from the top, for winter passages. I take the honey boards off, put on bee quilts, and contract the entranres to one half inch, or less, but leave them otherwise unobstructed. The caps are left off, and hives piled up four or five deep, as the legs on the sides of them just fit where caps rest, when on. I use Langstroth's hive.
You of course have tried "sugar diet," what differ-

ence do you find in the appearance of such colonies

If may?
I have some 15 or 18 colonies to which I fed sngar syrnp. One of them had I think, more dead bees on the bottom board than any other stock, except those extra strong ones transferred from the double width hives. In other respects I could see no difference between those wintered on syrnp, and those having natural stores. Many of them did not have much, if any more than a spoonful of dead bees in their hives, when taken ont of winter quarters.

They are breeding fast now, the weakest having brood in all stages, from eggs to young

bees hatching out.

I neglected to state in the proper place, that although those extra stocks are still in good eondition, they are no better than many others that contained not more than half as many

bees in the fall.

We are called to lament the loss of one colony, since putting them on the summer stand. During the cold weather that occurred last week, a medium sized stock starved, although they had two frames of sealed honey. had clustered at the south side of the hive, which stood facing east, and the honey being at the north side, the eold north wind prevented their reaching it, and so they perished. "Twas a sad ease," but one for which wintering is not responsible.

And how about the pollen? Your bees certainly had pollen in the combs as they could not—Halloo! The chair is empty, (is it any wonder?) and our friend is gone; but we'll make him teil next month, see if we don't.

## SUGAR SYRUP VERSUS HONEY, FOR WINTERING.

FROM P. H. ELWOOD, STARKVILLE, N. Y.

N A. B. J. for Dec., Vol. IX, Mr. Quinby writes:

"Novice, and other writers, claim that syrup of sugar is a preventive, and will save the bees from dysentery. I wish there was nothing to disprove it. Mr. Elwood, of Herkimer Co., in this State, fed several stocks that were destitute, one year ago, with that alone. They were badly affected with that disease, just the same as those having their own honey, and exposed to the cold the same. I fed a colony with loaf sugar, that, when exposed as others were, was affected the same."

Now, without in the least disputing the great value of Mr. Q's articles on wintering, we would ask him to reconsider the matter after reading the following. Has he not been too hasty in prononneing sugar stores no better

for wintering.

PRIEND NOVICE:—Your request for further particulars of the sugar fed bees, is at hand.

At the suggestion of Capt. Hetherlington, in the fall of 72, we extracted all the honey from our thirty-five colonies and fed each thirty lbs. of sugar syrup, made from twenty ibs. of A coffee sugar. A small quantity of cream of tartar was added, but this is prohably unnecessary. As there was a delay in getting sugar they were not fed until Oct., and consequently did not get all of the syrup scaled. This feature we deemed unfavorable, but hoping that it might cause no trouble, we packed chaif or four sibles and tons, and left them on summer stands. Result as Mr. Quinby stated—"badly affected with dysentery." Some dying, and nearly all weak. The unscaled syrup gathered considerable moisture, so much in the first swarms that died, as to bulge out beyoud the surface of the comb. To vaporize this extra quantity of water, a large amount of heat would be consumed, more protably, than the bees could generate.

We can throw no light on the sattement that our sugar led bees wintered no better than those with natural stores, except to say that Mr. Quinby evidently mismnderstood us on this point. We had no bees with natural food, and there are none such in our field, packed as we have described. Compared with natural stores in a well kept cellar, (Quinby & Root's for example) honey comes out far ahead. Compared with the ordinary cellar within range of our bees, sugar was more than four hundred per cent ahead. Compared with the ordinary cellar within the sun as possible (a la Novice, when not in frost proof repository) or made the Nuclei of suow banks (a la Prof. Cook, Gallup, Doolittle and others) sugar came out more than 10,000 per cent ahead, and you may add as many elphers as you please, for there was not a single swarm left within the range of our bees. And this in a section where hundreds went into winter quarters.

Over two thirds of ours were saved, and that with a good deal of bad management in the spring, for the writer is a n

nature?

I think it better to feed more slowly than you recommend; four pounds per day, for lifteen days even where no brood is raised, being better than thirty pounds in one day.

We started the present winter with 194 swarms. Put 100 into a modified Hibbard clamp, large enough to go inside and see how they get along, the remainder on summer stands.

We are wintering 50 swarms, on sugar the present.

der on summer stands.

We are wintering 50 swarms on sngar the present winter, most of them fed in Sept. A part out doors, those are all alive. Can't report those inside yet, haveu't had an extended experience, but so far have observed nothing but that harmoulzes with the Quinby theory, that cold usually kills the bees.

We are using Quinby's hive, which I think is not only the best frame hive for out-door wintering, but best for in-door also, the best for extracted honey, the best for box honey, the best for convenience in manipulating, killing as few bees as any, and finally can be built, if you are satisfied with a cheap hive, cheaper than the cheapest Simplicity live. All of which is respectfully submitted, especially the last.

# DEPOSITORY OF BLASTED HAS PERSON OF Letters From those who have made Bee Culture a Failure.

MR. GLEANINGS:—We have only 22 colories left out of our 57, and almost every day is cold, an ito-day 'its both cold and wet. Stall we buy some more? If not, what shall we do? Despondently. Novice.

Don't buy any bees, so long as you have a dozen left. Snumer will come, bye and bye, and then you can show us how fast you can build up. That you cannot winter bees, is very evident, and unless you can show us that you can summer them, we shall have to conelude you are no bee-keeper at ail.

#### MANURE ON THE BRAIN.

EAR NOVICE:-You're a goose! Do you think EAR NOVICE; -von re a goose! For you tarmy you can put a pile of manure around a bee hive in the fall and have it keep up heat by fermentation till spring? When the fire burns out won't the hive get cold?

But for all that, GLRANINGS for April is a splendid number.

C. C. MILLER.

Now friend M., that's all theory, (your latter observation, not the one about Novice) for did you never observe that the ground rarely if evor freezes under a very slight covering of sta-ble mannre, say six inches? If you think we haven't any facts to "fall back on" just read the following: Supposing it does get cold; if it keeps the ground from freezing would it not keep the hive at a low, even temperature?

keep the hive at a low, even temperature?

DEAR NOVICE:—Vol. 2, No. 3, is at hand, and as I see yon have manure on the brain, I am willing to give my experience in wintering bees in manure. I commenced mere than 10 years ago to winter bees that way, though not on the principle that the German lady puts her cheese in the manure pile to cure, or as your wagon load of manure would be to keep them hot, but to treeze them in. I have never falled when I put them up in good season and paid proper attention to them. I put up a late swarm that was so light that I thought they were not worth destroying for the honey, or wintering for the bees, but as an experiment I did it; they came out all right and made a good swarm. Thus; place the live on the ground in a suitable place where the water will not settle around them, with the front south. Take long damp manure that will treeze solid, and cover three sides and top, not more than one foot thick at the bottom, and less at top, then take a wide board that will eover the root of the hive when set considerably slanting (so as to give a good ahr chamber) then cover that up the trent of the hive when set considerably slanting (so as to give a good air chamber) then cover that up the the same as the rest of the hive; disturb them no more until the first pleasant day (with the mercury at color air the middle of Mavch, then remove the front covering and give them a good flight; you will see then lairly dance. After they have all gone in, set the board up in front of the hive to prevent the sun inducing them out in unlavorable weather, and remove the top covering and commence stimulating, using plenty of quilts. What bees want is a long sleep, a strong sleep, and a quiet one. There are more bees cooked to death than are frozen to death, nowadays.

B. I. Talbot, Viola Joya, March 1st, 1874. nowadays. Vlola, Iowa. March 1st, 1874.

### EARLY QUEENS FROM THE SOUTH.

EAR NOVICE:-1 think you are mistaken in saying that Miss Anna Saunders can sell all her

EAR NOVICE:—I think you are mistaken in saying that Miss Anna Saunders can sell all her Queens. Too many, learned in everything but bee lore, who are opposed to progress and reading, even denying the Queen bee story, would be slow to believe the large yields of honey that can be had here, even though they saw it. One Gent, could not take GLEANINGS, but could pay \$30.00 km 3 patent moth trap blves, who of course must fail tor want of 75 ets, worth of other peoples experience. I am sorry to posto "B'asted Hopes." Do help us.

Simplicity hives made last spring of hard pine, stood all summer and fall all right, but have wurped all to pieces this spring. Bee quilts almost rotten, frames and rader side of hive mouldy, combs flee; am now using for quilts single thickness of flew Brown Domestic, is it good? Will paint straighten my hives or prevent their warping in future? How can I clean paint and varnish brushes, and keep them ready for use? Can you furnish Bruz Saws, Table Guages etc. for making Simplicity hives, and the price? Lost 3 colonies bees, very strong, nil to combs filled with broad even in the corners, March 20th. They brought in hency March 20th, but incessant rain and cold winds ever since. Nary drop of honey in the hive. Other bees are now cicansing their combs of ollensive broad.

Wintered on natural stores on summer stands, no offensive broud.

offensive brood. Wintered on natural stores on summer stands, no disease, only starved by sudden check of honey and large family to feed. I had Queens fertilized every month of the year except Jan. I fear there is no narket South for honey, I took 40 lbs. 4 remium honey to State Fair, got no offerfor it. Have advertised Queens in State paper at \$1, and \$3, and nary order. I fear 'twould not pay trouble and treight to ship honey to Childago and don't want the sleepers in ray home

broken with tons of honey, for I'll surely beat your last year's crop any year, I think.

Wife says my bees will sturve us yet, for I give all my time, talk and provisions, to my bees and bee Irlends. Am out over \$300.00 eash, and took in many cent. Italians very far a heads of black in my hands. Can rear Queens from Feb. to Dec., don't see why all will not be pure with no black bees within a mire of me. I'lease tell me minutely how to ship them sately and cheaply long distances, as I wish no Queens lost by my Ignorance.

W. F. STANDEFEL, Dry Grove Miss. And 187th, 1874.

Dry Grove, Miss. April 13th, 1871.

If Queens can be sent safely to the North, and we haven't a doubt of it, there is a market for  $ten\ thousand\ instead$  of one.  $\ \Lambda$  postal card from you dated April 13, was in our hands the 16, and Queens might go nearly as quickly. Our eages of last season, although roomy and convenient, in several cases proved of insufficient strength, also in long distances, water in a sponge, dries out, as we prepared them in the fall, with a piece of candy. All things considered, we believe we would adopt the "Alley cage for long distances viz: a block of wood about 1x2x3 inches; bore two holes in one side nearly through. These holes should be of different sizes, say inch, and inch and a half, and should cut into each other so as leave an opening between them of about 3/4 of an inch. A piece of old, stout comb, containing sealed honey or syrup is to be seeurely waxed luto the smaller one, and after the Queen with a dozen bees, young ones are preferable, is placed in the other, wire cloth is tacked over both.

Miss Annie should be able to get a carpenter to make them complete, for her, for 50 ets. per dozen; if 'twasn't for the "awful" express charges we would make them for her cheerfully. Any boy or man can make his own, rainy days and evenings. Sometimes a piece of sponge, saturated with honey is preferred, but we think it more expensive and no better.

We fear you did not "halve in" the eorners and cover to your Simplicity hives, and nail them from both ways; when properly made, they stand the weather better than any hive we have ever seen, when used unpainted. They should always be painted, at least one coat, before being used. If your hives are not too bad, lift the combs and bees into an extra one, and take them one at a time and draw them up with nails, as well as you ean, serving the next the same way and so on. They ean be painted very well after the bees are in them. We think turpentine will soften your brushes. We always keep ours in the paint, and even if a little stiffened, we palnt away until it gets limbered.

We fear our Southern friends, are too liberal. We have many letters like the above from those who are endeavoring to disseminate en-lightened bee culture. Will those who have written us so many letters for "dollar Queens, early in the season, please send their orders to friends Standefer and Miss Annie. In that way we can aid them, and help ourselves too.

In a few cases, we have displeased, by using may say that we regard all ordinary communications sent us on bee culture, as matter from which we are free to select, unless the writer makes a request to the contrary We are also willing to keep back the names when so directed, but to scenre notice, the full name and address must be sent us in all eases.

## Heads of Grain. FROM DIFFERENT FIELDS.

R. ROOT, Dear Sir:—Of course you may put me down for the dollar Queens, and accept my gratitude for the suggestion and the kind offer that accompanied it. I assure you I do not need the ieast urging to induce me to lend hand, head and heart, to the advancement of apiculture, as far as my

heart, to the advancement of apleulture, as far as my endeavors can promote it.

My bees seem to like nothing better than raising Queens, and I have no doubt I could easily raise 1000 or more, but I did not think of it till yon proposed it. I thought my course would be to make as much honey as possible, and so benefit myself, the cause of apleulture, and the favorite bees at the same time.

There are only part of the Queens I now have, that I would be willing to sell daughters from. I intend raising plenty of drones from one of my best Queens his spring, and think with care, I can keep them through the summer and winter, and then be able to have Queens about whose progeny I will feel no hesitation. itatlon.

itation.

Our winters here are almost nominal, in fact this winter, I have only seen ice once, and then only the least little bit. My bees are working heautifully—one of my hives is scented with an agreeable perfume aow, coming from the pollen I suppose.

Last fall for about a week, a very nanseating odor hims around all my hives, I was quite alarmed at first, but noticed that the strong filves were most offensive, and every thing else appearing right, I concinded it must be from the pollen.

We must have a journal on Aplenture, in the South, our wants are so different from yours; our troubles are chiefly summering, over swarming, and insects, of whose annoyance you can scarcely form a conception there.

Miss. ANNA SAUNDERS, Woodville, Miss. Feb. 16th, 1874.

We regard swarming as only an indication of prosperity and as we have before remarked. like no better fun than the task of keeping the

disposition under proper control:

We presume all will admit that, as a general rule, if the women undertake to rear Queens, we should be sure of getting of them only good honest ones, and as a proof of their ability to hold out, in any matter where they have arrived at a fixed determination to sneceed, we have only to eite the glorions victories they have achieved over intemperance, in our own state of Ohio at least.

FRIEND NOVICE:—Do you think Blue Birds are enemies of Bees, do they eaten them, if not are they any advantage by pleking up the Moth Miller, would you encourage them about the Aplary?

Independance, Iowa.

E. A. Sheldon,

We have never heard complaint of the ordinary Blue Bird, but consider the Blue Jay without doubt an enemy. At seasons when our Apiary is most populous, they are seen to hover about in considerable numbers as though attracted there from the forest. To prove that have been shot and dissected. Whether the damage they do should consign them to extinction or not, we are anable to decide. We tinction or not, we are mnable to decide. We dislike to kill birds, and would first like to inquire if they have not some redeeming trafts. Can they not be frightened away from the vicinity by some means?

Could not the Nucleus hives be sent by mall? Evcould not the Nucleus inves be sent by many ery day I see packages of books etc., passing through the malls heavier than the hives would be.
St. Genevieve, Mo. Mrs. C. C. ROZIER.

Printed matter and seeds, are mallable to the extent of 4 lbs.; other matter 12 oz. only. So many complaints are made of the losses in introducing Queens that we have been considlng whether enough bees might be malled with the Queen to build up a colony with the assistance of a comb or two of brood only.

By the way Novice, I wish the Bee Journals would stop publishing letters about feeding sugar syrup to bees in order to make more honey; there is hardly a month but we have an article on that subject now, in the A. B. J. In this month's number I see some one conteads that sngar syrup is not honey till after it goes into the bees stomach and becomes acidized, it is just such articles, and such men, that hurt the honey business. I don't think that it makes honey out of syrup, any more than putting a piece of brown paper in my pocket-book makes a greenback of it. People don't want sngar syrup, even if it is acidized, and you have no idea how suspilelous people are. One thing they think looks bad is, it is so clean; I tell them if a little extract of pollen will improve it I'll bring them some and they can add to taste, but here I am running wild; yet I can't help it, I get so mad whenever I hear sensible men, (otherwise) talk and write of increasing their yield of honey by feeding. Cinclunati, O. April 2nd, 1874.

Langstroth says in his book, page 275.

Langstroth says in his book, page 275:

"That the honey undergoes no change dnring the short time it remains in their sacs cannot positively be affirmed, but that it can undergo only a very slight change is evident from the fact that the different kinds of honey or sngar-syrup fed to the bees can be almost as readily distinguished, after they have sealed them up, as before."

Now as this has been shown over and over again, and not one single practical experiment (so far as we know) to the contrary, are we not excusable in feeling somewhat as friend

Curry does in the matter.

DEAR NOVICE:—A year ago I brought through three rather poor colonies, out of 19. Increased them to 8, which I put in the cellar in good condition, Nov. 10, and then left them for the winter. Dec. 10, my wife found the eellar damp and bees uneasy. She alred and warmed the cellar, when they quieted down, and the cellar and house were locked up, and not opened agalu till I opened it myself March 30. Or course I was quite anxions to know whether any of them were alive, and was surprised to find the whole 8 in perfect health, with not a quart of dead bees in all. "Well, what of it?" you say. Why, nothing; only can't you let a body tell you of a little streak of good luck after losing 60 colonies in the two preceding winters? Chicago, Ills. C. C. MILLER, P. S.—My wife insists that she deserves the credit of saving the bees, by warming and drying them in Dec.

saving the bees, by warming and drying them in Dec. We agree with Mrs. M. and think the bees

in future should be considered her exclusive property.

I have a shed 6 ft. high in front and 5 ft. in the rear, boarded tight on three sides; on the south side, I have heavy musilu entrains that can be rolled up or let down at will, according to the weather. My bees are strong and work busily on rye flour every fine day. I wish you would give a piece in GLEANINGS about robbing.

Shimersville, Pa.

L. N. KERN,

We onec heard of a Blacksmith's shop belonging to the Am. Watch Factory, that had white. window enrtains, but we never before, that we remember, heard of curtains before bee-hives. As this gives them the full benefit of the sun whenever it shines, and keeps off all cold winds and storms, It may not be a bad ldea, if the Aplarist could afford to be on hand to "pull the strings" when advisable.

### A PIECE ABOUT ROBBING:

Well here goes; robbing is bad; bad when your bees rob each other, worse when they rob your neighbor's bees, and still worse when your neighbor's bees rob your own hives.

For a remedy, keep none but honest bees, i, e, those that have never learned what it is to get sweets from any other source than the flowers. We know of an Apiary (all Italians) where robbing is almost unknown, for the reason that our friend has always been careful to keep every drop of honey out of their way, and his bees have never got into a way of thieving. The very best preventive in the spring, is to keep all hands busy on the meal, whenever they can fly. We have known its agency alone, to restore quiet when weak colonies were sorely in danger of demoralization. most productive source of mischief, in our Apiary, is combs containing a small quantity of honey, or those from which honey has been extracted. All goes well until the supply gives out, and then every hive in the vicinity is attacked, and wo to the visitor who confidingly approaches at such a time. In all that Quinby and Clark have had to say about stings, we believe they have omitted to mention the danger of approaching an aplary when a lot of thievish hybrids, have just been de-prived of some remnants of comb and honcy that they have been quarrelling over. It seems to us that stings come at such a time, all the more aggravating, because they come without warning, and without provocation of of any kind. They just sting out of purewell, meanness.

There is a queer phenomena that we cannot quite understand, sometimes observed; and that is where a good colony permits themselves to be robbed without the least resistance; see page 44 Vol. 1. Many may be inclined to deride such an idea, with Italians, but they may some time see it to their sorrow. We have always succeeded finally, in getting them to show the desired "spunk" toward intrnders, but whether it was the "different perfinnes" we gave them, or the rousing them up that helped the matter, we cannot say now. With very weak stocks, of course contracting the entrance is a great help, and whenever they are really overpowered, the hive should be shut up entirely, but we would never do this when there seemed any prospect of their getting the better of the robbers. Nothing but real practice can enable one to determine at once which are robbers and which are not. After the hive is securely closed, we cannot sec any use of carrying them into the cellar: simply open it just late enough in the evening to allow the thieves to go home, and then we are sure to be the "first one up" next morning. If they commence again, we close the hive once more, and keep it closed about three days; robbers will usually in that time decide to remain there, and will labor for the very hive they have before been plundering, only that they still retain their thievish propensities, and are sure to be foremost whenever anything of this kind turns up in future. We at one time were in the habit of closing the hive with wire cloth, but after finding the wily Italians who were inside would pass the honey through to their comrades on the outside, we discontinued it. We at first were slow to believe this, but our friend Shaw says he has had it happen often, and in fact now closes his Nncleus hives with a double wire cloth with a half luch space between the two. If you are with your bees during the working season, there is almost no need of having any trouble from robbing.

Now, after the above remarks, some may think our dry sugar feeding, an inconsistency but it is not. A dozen boys might quarrel over a half dozen apples, but they assuredly would not over a wagon full; and thus it is with the begs. Several reports seem to show that even combs of honey, can be fed in the open air in the Aplary, providing you have an unlimited supply, and spread them out so as to give all a chance; but beware of letting them get out before the flowers furnish a supply. Our next frlend has had experience in open air feeding for many years; we will listen to him.

FEEDING IN THE OPEN AIR, ETC.

Commenced wintering with 31 stocks, lost 4 and one

FEEDING IN THE OPEN AIR, ETC.

Commenced wintering with 31 stocks, lost 4 and one died leaving plenty of honey. One was robbed, Queen left in hive, and one lost their Queen, so I supplied it with a Queen from robbed hive. One swarmed out and bees went into another hive. The 27 left are strong in bees and generally light in honey.

Commenced feeding meal about the 1st of March, also diluted honey and brown sugar at same time in old feed troughs made in 1854, and used more or less every spring and fall since. They are made of luch pine boards with thin floats perforated with small holes. The troughs and boxes with syrup and meal are set on south side of building in the sun, protected from fowls, wind, and rain. The troughs are kept sweet with boiling water and salt. As a general tiling, out-door feeding gives best results with me. It won't hurt the strong and certainly strengthens the weak, keeping all smart, and active; and as Langstroth says in his book, they will flock to the feed if warm enough, like plgs to a trough.

Honey causes the greatest commotion, while sugar leaving less seent in months of hives, gives less chance for robbing. They have carried away up to this time, the fine part of wheat, oat, and rye meal, 2 bushels, and 20 gallons of syrup. I tind no trouble in laziness, as natural stores accumulate.

Those 3 swarms spoken of some time ago (see page 22) supplied with old honey wintered well. The one robbed was one of the 3; I believe it was caused by the candied honey rolling out at the trout of the hive, and attracting robbers; as I was away It became overpowered by its near neighbor, they appropriating both froney and bees—no great loss.

My son had 8, the old and three young, the latter are "gone up." Trying times yet for weak colonles, but close care, and long and judiclous teeding will bring them all safely through.

Ghent, O. March 31, 1874.

It seems pretty certain now, that if bad hon-

Gnent, O. March 31, 1874. T. Pierson. It seems pretty certain now, that if bad hon-Ghent, O. March 31, 1874 ey causes dysentery one winter, the same honey fed another winter does not always produce it.

Is it necessary to give bees water in Feb. and March for brood-rearing; if not what is the reason my bees ceased brood-rearing in March?

Orrville, Ohio.

We have never been able to discover that

water was necessary while bees were indoors; after they were out, if cold, the condeusation affords a supply; if warm they cau go out and get it. Was it not ou account of lack of pollen?

MR. ROOT, DEAR SIR:—I have a Queen in one of my colonies, lutroduced last fall, that lays none but drone eggs. Is it likely, or possiblo, that she will do better, in the future? Mr. Alley nesures me that she was fertilized. She is a very fine looking Queen, is quite large

ontic large.

On looking into the hive to-day, I found a great many drones, (linely marked Italians) several prominent drone cells, and one Queen cell but no bees clustering around it, in the second frame from the outside; I am very doubtful as to the contents of this cell, not knowing where the egg should come from.

Will you please advise me what to do in the matter, the colony is tolerably strong yet, and is carrying in pollen, not much however. This Queen cell appears perfect.

West Independance, O. April 13, 1874.

We would treat the colony precisely as a

We would treat the colony precisely as a Queenless one; a young Queen sometimes pro-

duces workers after having at first only laid drone eggs, but a drone layer at this season, rarely if ever produces any thing better. deserted queen eell is a common ocenrrence, and only indicates they have discovered something to be wrong. If given worker larvae, they will probably rear a Queen just as if they had none.

My bees have, on account of the very backward and cold spring, no brood yet. Not until last Friday did I finish taking out all my bees. I found so far 32 dead and Queenless ones, out of 850, but fear I will lose more. A good many of them are weak, and 5 of them froze only a week ago. A. Fuerbringer and my brother C. have lost but very few stooks. On an average bees have wintered very well so far in this part of the country. country.

Jefferson, Wis. April 14.

As the above loss is less than 4 per cent, we must eall it very well, and that reminds us that we have been thinking of making up a list of those who have wintered with a loss not exceeding one per cent, and calling it the "Roll of Honor"but as we cannot call them wintered, until about June 1st, we will postpone the matter until next month. Of course our next friend will be included for she has had no losses.

We hope she may continue, to do as well.

FRIEND NOVICE:—I enclose 75 cts. for GLEAN-INGS lu Bee Culture. Should have done so before, but I have only one hive and I waited to see if it would come out alive. Put them out-doors the 7th of this month; they seem strong, so I send the money. I think GLEANINGS very suitable for small folks, I cannot afford a \$2.00 magazine for one hive. I hope to Italianize them, although I think they have a prolific Black Queen.

HANNAH W. WILLIAMS, Springfield, Iowa, April 9, IS74.

DEAR NOVICE:—Do you know anything about the Buckeye as a honey producing tree? I see it spoken of on page 38, Voi. 5, A. B. J. And do you know whether it is true that the leaves of that tree are poisonous? I never knew of eattibe being poisoned by them, but Intended to cut some of the trees down on account of the popular belief.

Hudson, Ilis., April 7, 1874.

E. SAGER.

Bees do not work on the Buckeye here, at least we can't find them on it. Don't know about the other.

MR A. I. ROOT, SIR:—I find myself minus two unmbers of GLEANINOS which I am obliged to have, can't get along without it; I am afraid without a reminder I shall get back into the "patent" business again, which I have discarded for life, cause why—GLEANINGS. I find my bees with more honey than I left them in Oetober, loaving no space for brood; I have therefore extracted four frames from each colony, which they seem to be disposed to re-fill with honey. I am going to try to raiso Queens this spring; send me a chapter in GLEANINGS on the subject, one that will not fail. I received a colony of Italians from Mr. R. M. Argo, of Kentucky, last April, which proved to be all I bargained for.

Sparta, Ga. March 7, 1874.

JUDKINS HUNT.

Sparta, Ga. March 7, 1874. JUDKINS HUNT.

Little Blue eyes may like to know that there is a little by here, who is very fond of bees. He was just two years old last November, and yet last spring he found out and told me where two swarms were issued. found out and told me where two swarms were Issuing. He lives a mile away now, and the first thing ho says when he comes, is, "Let us go see bees," and right into the hivo almost he will go, not being at all deterred by the stings, or even erying for them. Wo are afraid of his being badly stung sometime, but he never shows a disposition to trouble them and wo try to keep him away, as much as possible, from them. Blue oyes are at a premhum here. We would like to see a pair of which we have so ofton seen mention, tell little Blue Eyes from hor

Aunt Anna, Woodville, Miss.

Is it not a fact that small children are sel-

Is it not a fact that small children are seldom stung? Years ago, a blue eyed chick who is older now, used to terrify her maining by running away to the hives, and throwing saw-

dust into the entrance until a shower of Italians hummed about her ears, while she crowed in great glee, to think that "mamma" durst not come and get her. Was she stning, think you? Of course not, for she unconsciously preserved just the demeanor that secures the safety of an experienced bec-keeper, whilst hystunders at a respectful distance are are to bystanders at a respectful distance are sure to be attacked.

I had four swarms of bees last spring in box hives, but transferred them to Simplieity hives, which I had made at the cost of 90 ets. each. Had an Extractor made for about \$10.00. Extracted 180 lbs. Clover honey, and sold at \$\frac{3}{2}\$ ets. per pound for 120 lbs., and gave away and used the rest. Increased my swarms to 9. One beling weak, I took the bees and empty combs of a neighbor's box blve, and put with it, and fed sugar syrup. Also took the bees and empty combs of another swarm late in October, and transferred to Simplieity hive, and fed sugar-syrup. The rest had natural stores, and all are doing well in cellar, to date. The last one fed has six spaces filled with bees, and plenty to eat. What is the use of the quitte? I have not used them. used them. Wm. II. ROOT.

Port Byron, N. Y. Feh. 23, 1874.

By the use of Quilts we are enabled to seenre the benefit of closed top frames with none of their disadvantages in opening and closing the hive; they can be pressed down on the bees without hurting them, the hive can be opened or closed without noise or jar, and we ean turn up one side to take out one or more frames, without uncovering the whole hive, when robbers are troublesome.

A. I. ROOT, Dear Str:—I herewith enclose view of my Apiary, it was taken two years ago when I had npwards of 100 colonies, now I have but 22. I have just made an examination of them and found them all in good condition; whitered on summer stands. I am not educated up to anything but box honey as yet; in fact I have only the box hive but have lad good luck with it and hesitate to quit it; to tell the truth I have \$500,00 luvested in 200 box hives, with cross bars, well made and painted, and am not satisfied that I comid get any more box honey in any other way, so I continue on in the old way, it having paid me very much hetter than any thing (in proportion to outlay) that I have ever engaged in. I began bee-keeping 16 years ago with 9 colonies, and have now 22, having lost in whitering in that time, perhaps 300 or 400; had at one time 165, that was la the fall of 1871, this being the best figures that I ever reached; in the mean-time however, I have sold box honey to the amount of thousands of dollars.

Ridgeway, Mich. Feb 24, 1874.

Weather very cold and windy here; a good many bees blown away and lost every day that they fly. Work well on flour filee days, but they don't come often this spring.

A. J. HOOVER.

We have few honey producing trees in our neighborhood: we have plenty of white clover, but for some years the bees to not gather much honey from it, and buckwheat yields almost none at all with us. Rape might help us if there was a market for the seed but unfortunately there are no oil mills near, and without having saie for the soed, I doubt whether it would pay for the honey alone. Alsike clover I nnderstand blooms at the same time as white clover 1 nn-derstand blooms at the same time as white clover and when the one fails I think the other would too, and I doubt the utility of raising any other plant, that re-quires the yearly tilling of the soil, for honey exciu-sively.

S. Leuthi, Gnadenhutten, O.

B. H. Stair & Co., Cleveland O., will purchase rape seed. Our experience with honey plants confirms friend L's statement. Has auy one had honey from Alsike, at a season when white was not yielding It also? Would it not be advisable to expend the time and money toward building up strong colonies in time for the usual harvest, instead of venturing very much, as yet, on artificial pasturage? Of course, eareful experiments, by those who can afford to risk losses, are always to be approved.

I don't like to take the honey all away from the bees, and give them chean sugar-syrup in place of the honey for which they work so hard all summer.

Shimersyllie, Pa. L. N. KERN.

Shimersville, Pa.

Nor would we for the world, if we thought the dear little chaps were not just as well pleased, and sometimes a deal healthier, with syrup made of clear, white sugar.

Took my bees out of the pit March 17, all right and to all appearance as strong and heavy as when put in. Bees build wavy combs when from any cause they are building slowly, whether a strong swarm or a weak one; the stronger the swarm, the worse the comb. This is gospel.

We might accept it as "gospel" were it not

that so few points can be laid down in Bee Culture as invariable. Whenever we think we are sure of a thing and no mistake, somebody else's bees upset the whole theory by doing directly the opposite way.

I don't take any horse manure in mine yet nwhile, dirt is just as good and smells better. My bees always have plenty of brood when I take them out of pit. I can't make Qulits work on my side opening hives, frames % from tops, they don't tuck down worth a cent. My wite says if I make her as much trouble with all the new notions I get from you, she'll quit the bees-ness. I use a honey-board 3-8 thick and believe I like it better than Qulits, at least for hot wenther. It seems to me your plans all assume straight combs in frames to begin with, I supposed side opening hives were now considered indispensable. I put on Qulits 2 weeks ago, some gnawed through aiready.

Wyoming, Wis.

Several composin of having Quilts gnawed.

Several complain of having Quilts gnawed, but if coarse, strong hard woven cotton be used, we feel sure the bees will not trouble much; at least ours do not.

Guess we'll have to try a "plt" next winter. We are sure no oue will use "side openers" very long; they will have to be classed with box houey, and revolving can Extractors.

DEAR NOVICE:—Two months ago I thought I could bring all my bees through, but have lost 3 out of 12, the rest are in good condition; oar winter was a very mild one, but the spring is very cold; our Co. Paper says one-half the bees in the Co., are dead. I like the mannre idea, but wouldn't it soil our nice white hives and make them look bad? We are having n snow storm to-night—bees gather no pollen yet,—have seen them earry it in Feb.

Chariton, Iowa. April 4th, 1874.

A McMains.

If you cover the hives with shingles they are not discolored. We can cover the Simplicity hives with dry straw, and then the manure, and if put ou in the proper shape the straw ls

not even wet through.

Will not bees waste dry sngar if fed for sthmulative rood rearing? Langstroth says feed sugar-syrup

brood rearing? Langstroth says teen sugar-syrup very thin.

Itow can I get candied honoy from a barrol, without taking the head out? So far I have worked on first principles, numely a shingle worked through the bung-hole—molasses gnte useless.

Four swarms wintered on C sugar-syrup on summer

stunds, ali right. Canandaigua, N. Y.

Put some dry sugar in a tin pau where It will be in the sun, but out of the raiu, and see if you can discover that auy of it is wasted. Our bees don't undertake to carry sugar home In lumps. Your neighbors bees may get some, 'tis true, but shall we call that wasted?

Candied honey—a poser truly, but we think it can be "got out," nevertheless. Make the barrel hot, either in the sun or by the stove and we think the molasses gate will work. Borrow your wife's teakettle (when her back is turned) and make diluted honey for feeding, of all that obstinately persists in staying inside.

18t. I believe it is generally admitted, that bees are inclined to raise brood toward entrance of hive rather than otherwise. Would it be likely to increase breeding to have an entrance in each end of hive and occasionally turn the hive half-way around, always keeping back entrance closed?

2nd. Can transferring be done early in April with safety?

3rd. Can combs be emptied closes.

2nd. Can tunnsferring be done early in April with safety?

3rd. Can combs be emptied clean with Extractor, so that Queens will lay in cells immediately?

4th. If enough combs be given to new swarms to half fill the hives, is it best to put them together, with empty frames on sides, or to place an empty frame between every two combs?

5th. Will coarse brown paper answer well in summer and winter, to retain the heat and allow the moisture to pass off?

6th. Quite a number of Queen breeders offer Queens, in Gleanings, the coming season at \$1.00 each. I understand these Queens to be fertile Italian Queens but not warranted to have mated with Italian drones. Are any of these persons so situated at a distance from Black bees, that these Queens will be almost certain to have mated with Italian drones?

7th. I can purchase butter-firkinshere at 50c. each. which will hold about twelve gallons. Will they answer for holding extracted honey, or will they be likely to Impart a bad flavor to the honey, after having contained butter?

8th. Do you know anything about Alfalfa or Lucerne, as a hay or honey plant?

White Plains, N. Y.

Ggō. O. Tompens.

1st. We have not found that they are more inclined to rear brood near the entrance. In

luclined to rear brood near the entrance. In order to save useless travel, they may do so in the long hives; we have tried changing them end for end on the plan you mention, but discovered no especial advantage in so doing

The objection to transferring in April would be danger of chilling brood, and luter-ference from robbers, If they were not occupied in gathering stores.

3rd. The Extractor never leaves the combs dry, but the bees will lick out the cells clean enough for eggs in a very short time, say half an hour; an examination will then show the honey that adhered to the cells, carefully collected in a few filled cells, near the top, or outside of the comb; we frequently find eggs in a comb within a couple of hours after extracting

4th. Much is dependent on the size of the swarm, and the weather. We would put the combs all together at first, and put one empty frame between them at uight, when the comb was well started, another, and so on, endeav-oring to keep each comb strait, by having it built between two full oues.

We do not think it sufficiently porous 5th. to keep dampness from accumulating in win-

ter, but it does very well in spring.
6th Messrs Shaw and Daniels; Dean, uearly as good, and every season shows more Italians and fewer common bees.

We cannot speak for those who reside at a

distance.
7th. They will certainly do if waxed, and may answer if not; we cannot say.

8th. B. H. Stalr & Co. Cleveland, O. write:
We regret to say we are not well posted on Lucerne.
There has not been sufficient interest manifested in
Lucerne for us to test it; have sold it for many years.
In Europe it is also called everlasting clover, on account of its remaining some 10 to 15 years without
re-seeding. The price of Lucerne is 50 ets. per pound.
The Prairie Furner contains several articles

on its cultivation and we gather from them that It must be kept free from weeds for the first three years by careful culture, and that it yields no crop, or but a small one until the third year.

As the roots penetrate to a great depth, its power to withstand drouth is immense.



JUNE 1, 1874,

## HOW TO CONDUCT AN APLAKE

No. 6.

ANY of the remarks thade has thouth present senson is hearly one month sater than usual in all pertaining to Bers. During this month especially, should we see that the Quern. has at all times a frame of empty worker comb in which to deposit eggs as we have before mentioned, for it should be borne in mind that the eggs faid now will produce the workers that are to fabor during the basswood harvest. Be careful not to go too fast, and also be sure you do not let her get ahead so much that the bees imaging they will have to resort to natural swarming for we think this never happens mules at actors to the Apiarlst, that can take the same of the same than the same of t casily be avoided. Nothing but almost daily inspection of the interior of the hives, can eilable you to know just what needs doing, that you may do just the proper thing at the proper time.

If you have a convenient hive—the Standari we have described for instance but a very few minutes are necessary to take a peep at the interior of the brood hest, and when the bees get accustomed to your daily visits, we think you will decide that smoke is selden

really needed in June.

Colonies that are frequently handled, are eartainly more gentle, and so far as our experience extends, have invariably given the most honey, but they should of course be handled gently.

The hives in front of our Bee House door are invariably peaceable, whether they contain hybrids, blacks of Italians, and those in a remote part of the Aprary are often quite different in disposition. While the former are usually passed and repassed a dozen times a day, and frequently by those who are in a hurry, the latter are only visited when something is to be done with them.

Barrels for honey should be kept in readiness, and when waxed and painted as per directions given a year ago, they can be kept over without injury if not needed. We find it very convenient to have a few extra; to supply neighbors when a heavy yield comes on sud-

denly.

With the modern style of Extractors, and the double width, instead of two story hive, scarcely any instruction will be uceded for ta-king out the honey further than that already gone over. Friend Wilson of Lexington, Texas, writes:

When bees are bringing in honey rapidly, they appear to have little or no time to cap over. Many tell

us not to bear until it is clipped, but to throw out the thoney as soon as they commence capping; this to me is rather fadinific and unsatisfactory instruction. It is rather fadinific and unsatisfactory instruction. It is should be precised to term how much of a sheet of companied over before the sheet is cannot tell. It does not should be cappied over before the sheet is cannot tell. It does not should be considerable loss will result for with of room to store; your bees will give impalent and ge to swarming as sheet a few luminous rays on the subject in June No. of Grances Sand and thus oblige. One Bee Boy.

It seems to us he has aimost answered it himself. Before the cells of honey are capped, the openings are narrowed down to a small driftee, the size of a pin's head perhaps; now. when high of a sheet of comb is thus partially capped and high ben dozen cells or so, bent the top bar are empted over would be just about the time to extract, we should say... The impossible to find the contents of the hive all in this condition; for some of the combs will perlines the prefix well capped over, while others are thirdly ready; this makes but little difference flower, and it will thicken still more by being kept, even if bunged or corked up.

"Kruschke Bros. send us a description of a

vory light case for carrying combs made pring cipally or 38 basswood. A round haudle is fastened by a strip of iron ar cach end, in such a way that it will turn over and lay on the edge of this box. They, offer to furnish a pair to hold of combs each, with close fitting cover, for Then. When the combs are quite heavy, and are to be earlied some distance; they advise a "neck yoke," such as farmers use in sugar

camps etc.

With the Hexagonal Apiary, 56 hives can have ample room, and the farthest be no more remote than 24 feet from the Bee House door. For such a distance we sometimes think a case is hardly needed at all; besides the Italians cling so tightly that we can many times walk to the house with a comb, while we are brushing them off. We need hardly add that 'tis poor policy to waste young bees at any season, and they are pretty sure to be, if the combs are put into the Extractor before they are all brushed off. The distance of your hives from the Extractor, and the amount of time you have to spare, has much to do with the question of using comb baskets.

· Do not give the cappings or anything else to the bees to lick off during a yield of honey. It will hinder them from going out to work, and they will not get as much stored, as if they gathered it from the field; consequently the honey on our cappings is worse than wasted. With the wax Extractor it can all be saved, and with very little trouble. For more particulars about extracting, sec June No. of 1873.

### STANDARD HIVE AND FRAME.

N. N. B. J. for April, page 94, we read as follows:

"We no more expect ever to see a "standard frame," or a standard hive, than we do to see a "standard" religion or "standard" opinions on anything.

People cannot see alike, and the hest way is to exchange opinions freely, and then "agree to disagree.""

Again on page 121, B. K. M. we read:
"A STANDARD FRAME.—Everybody—beg pardon—every bee-keeper, would like to have all other sizes and shapes of frames and hives, thrown away, except one. Whose is it? Why, mine, of course. No other is just right. It is like the efforts to unite all denominations of Christians. They are all ready, willing, anxious, but it must be done on "my creed."

We are really sorry to find we have been so

little understood, and that too, by two Journals, who certainly have it in their power to do much toward lessening the growing evil of having so many different dimensions of hives and frames, and still more coming. We can-not see how Mr. King could get the impression that we advocated our own favorite hive, for the one we have proposed as a Standard, because it seems nearest the preference of the people,

is one we have never used at all.

Mr. K. and Mrs. Tupper would do a great amount of good, by advising their subscribers to adopt the 12x12 frame if they are agreed in preferring that, and also by advising them to be very exact in the outside dimensions, that whenever American hives are found, from whatever source, any frame may fit any hive. New beginners could certainly adopt this, just as well as to have them vary ½ or ¼ of an luch, or just enough to make an exchange impossible. What bee-keeper has not seen trouble of this kind. Because the evil is so great, shall we despair and make no attempt at all to lessen it, or to prevent its Increase with the

next generation of Bcc-keepers?

B. K. M. and N. B. J., we beg of you both to consider well, what you are doing before you advise Bee-keepers to make no attempt at uniformlty in hives and frames. We should be perfectly willing to adopt the American frame as a Standard if I was the wish of the majority, and in choosing the Adair trame which comes nearly half way between it and the Langstroth frame, we hoped to have one that would be adopted when circumstances favored a change, by the advocates of both, or either of them.

We hope no one will be so thoughtless, as to allow personal or outside matters to influence their judgment in such a matter. If we cannot have one frame, cannot we limit the number to four or five, or half a dozen at least? In the manufacture of Extractors, great expense and labor can be saved by coming down to a few

regular sizes.

What would be thought of our coach and wagon-makers if they persisted in making vehicles that "tracked" all the way from two to ten fect in width, with no two alike? Now if Bee Culture is to become a permanent industry, are not the evils of hives and frames all unlike, a parallel case?

Weather wet and cold, bees breeding up very slow-ly notwithstanding the piles of manure around them,

for that has cooled off—the rain we have had for the last two weeks would cool off almost anything. Have made several "Standard lives" after the plan in April No., I like the looks of them. You speak of pninting bottoms before using, I suppose you mean inside hive, and they need it entside full worse don't

the life inve, and they investigate the thory?

How would belling conl-tar, with dry sand sprinkled on, do for them next the ground; preserve the bettoms and keep the dampness out wouldn't it?

Manalapan. N. J.

C. H. Rue.

We should think the coal-tar and sand, a be somewhat inconveulent, unless a lot of hives were treated at once? We always have paint handy and can put it on at once. The eoaltar would doubtless be cheaper.

DEAR NOVICE:—I took my 5 hives out of cellar April 10th. One was Queenless, one swarmed out the same day and went to another hive. Speaking of Standard hive, I have come very hear it, I have made a lot of hives 31x18, holding 20 frames; the frames are II %x13% out-side measure, with % Inch square bar for top, and lay my quiits on top. I also made a lot of hives square 15x17 holding ten frames, and box on top under which I put 4 honey boxes, took off quiits and put boxes on top of frames. Hive made same as yours by rabbeting and nalling both ways on the corners. Weleatville, Ind. April 4th. 1874. A. PLOUOH. We have also had several orders for hives to hold only ten of the Standard frames, but we

hold only ten of the Standard frames, but we would not advise these to be used either for a two story hive, or for hox honey on account of depth. If we were to use a two story hive, 'twould assuredly be the Langstroth frame, and for box honcy, either the L. or Q. frame.

As we have given several letters, defending a larger frame than the Standard, we will give one in favor of a still smaller frame. friend D's letter of last month.

friend D's letter of last month.

I prefer a shallow frame, became the bees regain the cluster better on cold days, in fact I like to have the cluster near the entrance; the reuson I like a short frame is, it gives me the power to condense the bees into a small compass for wintering, and at any time when reduced.

For all that I can see, my Queens pass to the next comb in laying, readily, and I can interpose a comb that is empty when I please, and will not bave a cold end in my hive at all, especially in winter and spring. The bee bread will be on about four combs mostly, to be had at pleasure, this helps us with weak hives. I generally take up about 100 hives in the fall—keep about 50 over. This gives me a warrant of success, and I increase more in new swarms. I have to handlo more trames, but what of that, I am willing to york harder and make a sure thing of bec-keeping. I can say a great deal more that is truly important to the hive I needed. Delhi, Mich. J. L. Davis.

Now as an evidence of the soundness of Mr.

Now as an evidence of the soundness of Mr. Davis' teachings, we append the following, that came some time ago from his neighborhood. We don't know what frame friend L. uses, but hope he will luform us.

uses, Dut hope he will luform us.

Mr. EDITOR: - I rec'd from one swarm, 4 others, and 434 lbs. of honey. The old stock had at the end of the season at least 46 lbs. of honey and 30 each for the young swarms nade a part of the 434 lbs. From 5 strong and 3 weak colonles, I got about 1600 lbs. of honey which here, was as goed as \$210.00, and had in the fall 16 very hoavy swarms. I have never seen so good a season for hees as this, in this place. I have never taken a Journal until Mr. Davis sent GLEANINGS to me. Mr. Davis has taken much pains to show me how to manage my bees, when I have visited him; he lives ten miles from here. From one of my hives I got 25 lbs. in 3 days, from another 37% in 7 days.

West Windsor, Mich.

J. La Lewis.

West Windsor, Mich. J. L. LEW18.

Are we not right in thinking, all things taken into consideration, that the evidence in favor of a larger frame than the Standard is just about equal to that in favor of a smaller, and no more; and may not the same be said of both length, and depth.

#### PROBLEM NO. 22.

ABSWERS ONLY ADMISSIBLE FROM OUR LADY READERS.

MALL Poultry be allowed to roam at will in

the Apiary!

"But Mr. N., is the above properly a problem? and in fact are not your problems many of them, christened with rather a queer idea of the definition of the word. ?"

"No, no, don't get the dictionary. Well

call this one a conundrum."

"But It Isn't a conundrum either." "Well what would you eall it then?

"Perhaps a question for a debating society; or rather a question for debate, for a Bee-keeper's convention, to be decided by the feminine part of the assembly, as you have stated it?"
"Very well. Of course the 'Chair' should present the subject?"

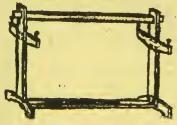
"Undoubtedly; but the Chair should be sure to do it impartially, and if we mistake not it is already prejudiced pretty strongly on one side of the question."

"Well how will this do: We will publish the reports on both sides of the tion, from both sexes; afterward we will cide the matter by a vote from the ladles. Meanwhile every one is at liberty to constitute his Apiary of one Bee Hive and 50 chickens, or 50 Rec Hives and one chicken, but it can't be considered an Apiary unless it contains at least one Bee Hive.

P. S.-"But is it best to say nothing about the annoyance fowls have many times made us hy getting in and scratching the saw-dust all around, digging holes under the hives, knocklng the entrance blocks away, and last but not least, making the operation of going down on ones knees beside a hive, as we often do when at work, one of quite doubtful expediency? and honey! just think of it; as neat and tidy as bees are in their habits, does it not seem that poultry might be kept in a domain of their own, or at least excluded from that of the bee hives?"

"We would say nothing about it. When poultry have the run of a large farm instead of being cramped up in town as we are, it might make a great difference. Besides let us hear what has been the experience of others."

ANSWER TO PROBLEM 21.



Answer to problem 21 will be found in the above sketch, I have used two like this, holding four frames each, rack is made of I inch plue.

R. H. Dixon, Canandaigua, N. Y.

Thanks friend D. Your frame has an advan-tage over our own, inasmuch as it can be carried easily with one hand; but how about robbers? Unless you have something to cover up the combs, the above would be an excellent mark for thievish hybrids. In 1870 'tis true

we forgot there were robbers almost, but every season since has obliged us to use "eternali vlgilance."

### OUR OWN APIARY.

OR two days past we have had weather, that allowed the bees to fly a little in the middle of the day, but nothing that can really. be called warm weather.

The manure has all been removed for a week or more, and to-day we have raked up the rub-blsh and banked sawdust around the hives, as we usually do in March. Two colonies were found Queenless and were united; as both together had nearly enough bees to raise a Queen, we gave them some eggs, for it is now late enough in the season to commence Queen-rear-

ing, ordinarily.

Of the remaining 20 colonies, perhaps half have brood on two or three combs, but not one has brood in four combs; the other lialf, can only fetch up with warm, favorable weather. We really do not know of anything that can be done unless we have warm weather. A colony that had been fair a month ago, was found after a frosty morning, with not enough bees to cover half of their sealed brood, the beeshaving been lost we suppose, in attempting to. work on the soft maples, which are just now in bloom, during the cold windy weather.

After supper—Another Queen is missing, and we have now this second day of May, only nineteen Queens and net bees enough with them altogether, to fill three, one story Simplleity hives. Were it not that we are receiving reports daily of similar losses—misery loves company—we might think we alone were

unfortunate.

At any rate, none of our readers can now accuse us of not having had experience with the dark side of Bee Culture.

The following from friend Doollttle seems to indicate that even hives full of bees, do notrear brood unless they can have out-door exer-We first give an extract from a letter

dated March 4th, as follows:

his 54 colonies and 4 molet, are in spiendist condition at present date. Some of my fall colonies have 200 square inches of brood. I have never bet but two swarms of hees in winter, and those through starring by carelessness, but when we come to have 25 days of weather that bees cannot by the the last of Aprill and first of May, (like spring of 1994)? areas confess I am not quite equal to the case.

am not quite equal to the case.

Borodino, N. Y. April 30th, 1874.

FRIEND NOVICE:—My natural disposition is to be cheerful, but I must confess I am feeling rather deapondent about these times. We have had but three days this month on which bees could fly. It snowed on the 25th, to the depth of 12 inches, and has been sang winter weather ever since. Bees must generally become extinct if the springs in future prove as unlavorable as the past two; in fact scarcely any remain, except with two or three practical Aplarlans in this County. I have 56 swarms allive as yet, but a part of them cannot stand it long, as the old bees are dying all the while and no young ones have been rearred, of any account, this spring. I have examined but eight hives, as the only comfortable day was on Smalay, but feel now that I should attend to their wants even on a Salbath. I have hives that occupy to ranges of comby with bees, with brood on only two combs, and Small space at that. I have done all I could for them main if I lose them it cannot be helped. Has the last week been cold with your manure?

(i. M. Dool-UTLLE, May Sth—To-day is our first really warm

May 8th-To-day is our first really warm day, and our 19 Queens bid fair to make a "live" of it after all,

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40 war.

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We have "tidied" up our Apiary, got the hives around facing the east again, swept the ground up clean, and things are back in the

old shape once more.

Whether our "manure experiment" was detrimental of otherwise, we are at least, at present not inclined to recommend it to others. We have to day located one of the long Standard hives in front of one of the grape vine trellises, and find the position fronting the East, with the lid to open back against the trellis, much the most convenient position. Bees among the farmers about here have wintered unusually yell, and of course they laught at our "scientifie" Bee Culture. Offerays, at 15 the Extractor that silled our bees, another, that sugar-syrip isn't materal like honey a third that the Italians are fo biaffic etc.

If we were perfectly satisfied just where the whole trouble was, we might try to tell. As it is, "guess we won't," at present.

May 9th—Last evaning, we discovered our poorest colony so anucle reduced that no attempt seemed to be made to use the eggs which the Queen was partiently depositing, and the brood having been killed by the recent one Queenless—not colony but fittle cluster: We have now just retribeen laying Queens) As our attempts last senson at naiting such our Qilinby, hive lost their Queen and reared weak colonies by eaging the Queen, had resulted in their death, almost invariably, we and we fear, may be too old? Diones has a specific untitled, and therefore slupply lifted the board and therefore slupply lifted the board. and therefore slipply lifted the bees combs and all, from their own hive into the other. Although both colonies had been during the day, active in repelling robbens, they seemed to take a very favorable views of our kind intention, and crossed antennas with the new openpants in a manner so amigable that we closed the hive thinking our former skill with bees , zavas at leugth, after having played us truant hour later, and audilier this unounful later, and hour later, An examination half au' ethé Queen all right.

May 10th—Our nice Queen beling found deat just the sensation experienced in finding a fine Queen has been killed by her bees; we first feel sorrow, then regret and chagrin, especially 'tis through any of our own carclessness. The concluding sentiment with us is a strong tendency to "git mad" only restrained by the thought that as nothing can be done to realimate that little form, all we can do is to resolve to be very eareful in future, and then endeavor to stifle the pang by trying to forget all about it in busying ourselves with the rest that are alive-perhaps, meanwhile whistling a refrain on a similar key to the mourning note of the now Queenless colony, as It comes to us

faintly as we pass near them.

The weather is now beautifully warm andpleasant; this morning we found one blossom on the early eherry tree for "Blue Eyes" who opened them still wider, and almost exhausted her infantlle vocabulary in her delight at it. Before sun down the tree was almost in full bloom and the bees that had been robbing in the forenoon, in the afternoon were gathering honey at a very fair rate and "Blue Eyes" was still more delighted to be able to see where the bees really got the bulliant colored pollenthat she and "papa" had watched and admired so much, their bread and batter" for little bees as it had been explained to her. .

May 11th-A thorongh examination to-day showed that a few colonies were making as-touishing progress, more, were just getting under way, and two, were dwindled down intil there were too few bees to even liatch and regging and Editorial consultation we decided to make no more attempts at introducing these Queens to Queenless colonies, but proceeded to cut pieces of hatching brood a the beas could care for them, and these were insorted night next the small cluster, being careful not to demorally, the remaining frail organization which kept the dozen or two bees near their Queen.

Dinner time—In one case the bees have commented feeling the brood, but in the other non-

and an accession of downey infant bees has hatched, seems to infusive courage once more into their this heartened hives.

made their appearance in one hive but we conthan as an evidence of prosperity, for their brood does not compass more than four combs.

Mily 12th; 5 o'clock in the morning.—The cher' ry trees are literally odorferous humming snow drift of bloom, and we find ourselves Tell all alone to enjoy the prospect, for no one

else is stirring visibly. We flud on the ground in the Apiary a greater number of bees crawling about or just moving, than we think oau possibly be consis-

tent, with a natural state of things

They are not old bees for their wings are in front of the hive, we shall have to conclude perfect and number of them are evidently from our former skill has not returned after all; their downs appearance, young Italians. We wonder how many of our readers know flud them on the walks and fences, and if 

others have spoken of it, but again, Apiaries but a few iniles off seem to know nothing of it, and their bees have passed through the present spigig months that as well as usual.

May 13th-We really can't think of anything else to express our feelings, except swinging our hat again, just because one young Queen has conjuneded laying; and now we have eighteen again, instead of seventeen. If our fortunes liave really passed the lowest ebb and commenced ascending, we shall draw a long breath of reliof. The weather pow is all that can be desired, and we are interposing combs as fast as our half dozen strongest will bear it; and 'tis pleasant' to note their daily growth and prosperity. 'Our best-roolony, is really getting its hive full of honey from the fruit blossoms, but we shall remove combs and give them empty ones as fast as they will bear it, using the removed ones for 'peopling' our emp'ty hives.

May 22nd—We have had a week of cold, wet weather, and our two weak "clusters," are Queenless. One of the Queens died three times, and the last time she "stayed" dead in spite of persistent efforts to coax her back to this world of care.

Truly:

"This world's a wilderness of woe."

Why it's really aggravating to hear from others who haven't lost any. We know how to take care of bees, every body knows, especially when they are all strong stocks, and it's warm weather with no cold storms. We have kept saying to ourselves all along when the weather was bad, that friend Bolin would be sure to lose some of his 99 colonies now, at any rate, but imagine our disappointment at learning he has not. We believe we shall have to let him stand "clear up to the head," in the "Roll of Honor," while we shall have to be put down to the extreme foot, or perhaps placed a yard or two below all the rest.

The advice given in the following, for spring

treatment, we heartily commend.

## HOW TO "SPRING" 100 COLONIES WITHOUT LOSING ANY.

RIEND NOVICE:—I'll tell all I know about the pollen wereld of putting me in the Editorial chair again. The mere thought of occupying such an exalted position makes me feel nervons; more so than it would to have a lot of cross hybrids g of or me, although they can sting a little, if

Some stocks had considerable pollen when put into winter quarters, others very little, and in several of them the supply was nearly or quite exhausted, when they were put on the summer stand; yet the rye flour they carried iu, seems to have supplied all defleiencies in that respect. As many of the best stocks I now have, are some of those having the least pollen, when taken ont of winter quarters, I think they should have some pollen when put into winter quarters, as I do not think they can raise brood without any; still of the two extremes, I should prefer their not having quite enough, to a large surplus, as it is easier furnishing what they need in the spring, after they are put on the summer stand, in the shape of rye flour, than it is to get the old dry pollen out of the brood comb, where there is too much. Rye flour is undoubtedly one of the best stimulants we can give our bees in the spring, as it gives a greater impetus to breeding, early in the season, than anything else I have tried, and at the same time it keeps them out of mischief, by keeping them busy. It also saves the lives of hundreds of industrious workers, by giving them employment at home, instead of ranging the fields and woods, in quest of natural pollen,

My bees carried in the flour from about four bushels of rye, this spring. They worked on it, to some extent, the first week in March, then not again, owing to the cold, until the third week; and after that whenever the weather was warm enough, until about April 25th, when they left it altogether for natural pollen. The first natural pollen was brought in the first week in April, being a month later

than usual.

My losses this spring have only been the swarm that starved, (I am almost inclined to say for want of sense as they had plenty of honey in the hive, the second week in March,) and one Queen in April, the rest are doing well. The Queen that died was not quite two years old, yet she was one of those "natural, long lived, prolific Queens," of which we read so much a few years ago; whilst a forced artificial Queen that was hatched May 6th, 1870, is as full of life as ever, notwithstanding part of her lungs are gone—one wing clipped. She led out a swarm May 1st, 1872, and one May 20th, 1873, being the first natural swarms I had each season. The summer of 1871, I took from the old stock, and the two swarms that eame from it, 216 pounds of box honey; in '72, 120 lbs. from her colony; and in '73, 150 lbs. from old stock and swarm. If elipping a Queen's wings gives such results I think I shall be guilty of more of it, even if it is "impertinent interference."

For several years I have practiced stimulating my bees, in the spring, by giving them a spoonful or two of syrnp every evening. It is eonsiderable trouble, it is true, but it pays, and that is what most of us work for. I have not found, in my experience, that having plenty of scaled honey, or even feeding a large amount of syrup at one time, answers the same purpose, so far as breeding is concerned, as regular, dai-

ly feeding.

The worst, and in fact about the only trouble I have with my bees during the winter and spring, is to keep them from leaving their hives in quest of honey or pollen, when the weather is too cold, after they are placed on the sum-mer stand in the spring. The remedy is sha-ding the entrance; and in a few instances, during the bright but cold weather of the last two mouths, when they would perish in coming ont, when I knew it was too eold, and the ground was covered with snow, I shut them in. Covering the hive with manure at such times, only makes a bad matter worse, by iucreasing the heat and making them still more anxious to be out.

I have not lost a swarm for several years, by the bees swarming out and joining other stocks. Where such losses occur, they are generally owing to either queenlessuess, want of sufficient bees to care for brood, want of houey, or mouldy combs. The first two causes may be remedied in the fall, by giving to all stocks that need them, young prolific Queens; the third at the same time, by feeding until they have sufficient stores, and the last by giving upward ventilation, during the winter.

I am sorry to hear of your loss, but I have one consolation; Novice knows how to build them up again, on the double quick, and will do it. Tell "blue eyes" that we have a little three year old blue eyes here, who would part with anything else on the place sooner than she would with a swarm of bees. No amount of reasoning will make her believe the bees will sting her, intentionally, and she aets aceordingly, and they seem to respect her faith in their good behavior. West Lodi, O. May 20th, 1874. JAMES BOLIN.

P. S.—Losses have been heavy in this section, during the winter and spring, where bees were left to take care of themselves, amounting, in some eases, to from 12, to the entire stock.

## Gleanings in Bee Culture,

Published Monthly,

A. I. ROOT & CO.,

EDITORS AND PROPRIETORS

MEDINA, OHIO.

Terms: 75c. Per Annum. For Club Rates see Last Page.

MEDINA, JUNE 1, 1874.

"BLASTED HOYES" is so large we couldn't put it in at all. "Reports Encouraging," tolerable, but "Humbugs and Swindles" have dwindled down to nothing worthy of publication, which is the best news of all.

FRUIT blossoms are furtishing an impreeedented amount of honey, is the report from almost every side. Oh that we had bees to gather it. "Easy" says "bny 'em," but Prudence says, "No Sir 'ee. Learn how to keep 'em first."

WE feel dally more strongly convluced that the two story hive is about to be laid aside, and the double width ones used instead. We shall in future keep only the latter under up on hand, and only make the former to order.

MR. MUTH this month advertises an extra fine quality of filnt glass Honey Jars. Just the thing where you wish something extra alce; say, for a present for Instance. Who would not be pleased with a nice that glass jar of honey?

AG MN, we are obliged to omit many things we disliked to, and have even been obliged to put diagram of Queen eage on the cover. We fear our triends will think as we do sometimes, that we have inserted unimportant matters and omitted those of value. "Like enough," for after all "we're all poor cre'tur's."

MR. ALLEY was one of the first, if not the first who attempted to raise good Queens at a low price. Some of our Medina Bee-keepers' think the best Queens they have had, have been from among those ree'd of Mr. A. See his advertisement in this number.

Those who have airendy subscribed for Gleanings, can linve Mrs. Tapper's Journal or the A. B. J. by sending in \$1.50; B. K. M. \$1.00. This gives our readers an opportunity of taking all the Journals If they wish, at a low rate. We will try and make equally advantageous terms for the Bee World when they get it out on time, and with a little more care. All the rest come to us now, full up to time.

WE too have an imported Queen just from Italy. She was brought by an old acquaintance, and we feel as much confidence in her, as if we had brought her personally. He started with 30 and brought home safely 27: Is not that pretty well? As she cost us \$15.00, we did not dare risk an introduction, and so placed her and accompanying bees, on three combs of batching brood, carefully brushing off every bee as they were taken from the files. This was the 22nd, and to-day—25th, they are a fair little colony.

WE have just learned of the sudden death of one of our number. A letter from him appears in Heads of Grain, written apparently without a thought that he was so soon to leave all things earthly. We learn his bees will a great part of them be sold soon. Address as per advertisement in May No., M. Miller, Peninsula, O. Mny peace be his lot, and that of all other good Bee-Keepers', when they leave us, for that Great Unknown other World.

In answer to many luquiries, we would say that we would have no hesitation in feeding the honey, and using the combs of colonies that died in the winter, providing it be fed in warm weather. Get it worked up into brood it possible.

We have never heard of any trouble during the hol summer months. We would feed it in the combs by all means, and it may thus be made to save an equal amount of our thest honey if it is not first quality itself. The combs are very valuable for building up stocks, and the honey stored or scaled up in them, we think in the best shape to feed it can possibly be.

ALL about the Averlll Chemical Paint, how to use lt, how much it costs, how much is needed for a square yard of surface, etc., etc., can be gathered from the price list and sample card, that will be furnished on application to the Co., whose advertisement see in this No. Wo have remarked more than once before, that we would use nothing else for bee hives, and we now add that we should never think of hiring a painter, even had we one hundred hives to paint yearly. Our paint pot was last used, and put away with the brush in it, Nov. 22nd, and remained uncovered and untouched until May 9th, a period of nearly 6 months. when it was brought out and a couple of hives painted In good shape in less than 20 minutes; yet the paint ls dry enough to handle without solling, in a few hours afterward. And best of all, It runs smooth itself, no matter how inexperienced is the hand that puts it on.

WE would be very glad indeed, to be shown that an efficient Extractor could be made for \$1.00, but from an examination of one sent us by Mr. A. N. Draper, of Upper Alton, 111., we fear it cannot be said to be a decided success as yet.

The machine is a tin case something like a dripping pan, having a sheet of whre-cloth framed in tin, taid over the top; the comb is laid on this, and the whole apparatus is whirled about the head by means of four cords attached to the corners.

The apparatus will certainly work, (but the wirecloth will need to be better supported than in the sample sent us), and for a very few lives it *might* give fair satisfaction.

As the case must be emptied for each full comb, the work must necessarily go on very slowly, and all things considered we fear few would be content with the implement; especially after the number of their colonies had increased very much, as bees may always be expected to do.

Although we have criticised the Bee World's typography etc., severely, it was not done with the intention of injuring Mr. Moon, but on the contrary, with the hope that it might induce him to be a little more careful in his proof reading. We believe 'tis well known that the most powerful corrective of bad spelling, punctuation etc., is the ridicule that generally attends "short comings" in that direction; whatever comes from the press uncorrected, is sure to be pointed out sooner or later by some one.

We are well aware that GLEANINGS contains errors in spite of the best we can do, and value criticism more than we do commendations; for how are we to improve unless errors that we overlook are pointed out to us, by those who notice them? When the Bee World comes to us with no more errors than are to be

found in Bee Journais generally, we will give the Southern Bee Journal a permanent advertisement gratis. As Dr. Jewel Davis, seems to have mishnderstood our motives in the matter we would respectfully defer the matter to him.

On Sunday, the 24th, we noticed in the morning, that a populous colony of ants had located, and were fourlshing under the door step of one of our weak colonles. We went for the "ten-kettle" but not finding it hot, concluded we would postpone until a week lay our intention of treating them to a bath of boiling water. We do not resort to such extreme measures usually, but they had begun to extend their nest clear into the hive and were evidently annoying the bees. About 2 o'clock these bees swarmed out; before we could find the Queen another colony caught the note and in less than fifteen minutes, five had left their hives and ail was confusion. We "got around tast' for a while, if it was Sunday, and soon had all the Queens in oages on the top of their own frames, and watched the bees whilst they dispersed to their respective homes. The fever however dld not leave them for several hours, and every attempt to release the Queens was met with such fleree attempts to sting them that we left them eaged. All five were very weak, and the Queens had laid several eggs in almost every cell inside the cluster. This occurred just when a lot of young bees were taking their first

WK once before mentioned, 'twas out of our province to defend the Darwluian theory here, and we say again that those who have a curiosity in the matter had better read Darwin. We will however say this much, that Darwin never tells you a thing is, or is not so; he has almed rather to present facts that many of us have already observed, and then mildly asks the reader if if does not seem probable that such, and such results came about in such a manner. Agassiz on tho other hand most positively declares they did, or did not, originate in the manner he supposed.

B. K. M. says in April No., "'natural selection' can never change a honey bee into a wasp etc." Now aithough Darwin doos not so teach, as we understand it, we would like to know what right the Editor at the above, has to be so positive. How does he know? As to how the bee existed while his proboscis was being acquired "gradually," we would suggest that they then worked on flowers of a moderate depth. Should a certain Queen's progeny be enabled to get honey from red clover, because by accident they had a longer proboscis than their neighbors, would they not stand a better chance of wintering and thus perhaps perpetuate such a race of bees? We never saw so much to call forth admiration and respect for our Creator's works, as since reading Darwin.

### 070 QUEEN REARING.

T is with some hesitation we undertake to direct in this matter, and we have delayed these papers to see if it were possible that the manner in which Queens were reared, had any thing to do with the great losses in the spring of this, and the past three seasons. While a few instances might seem to indicate such the case, the majority do not, for we have precisely the same state of affairs where common bees, box hives, and natural swarming were the rule. We shall take great pains to recommend noth-

ing here, that has not been fully tried; and while we cannot promise to enable you to "make a sure thing of it every time," we will endeavor to come as near It as we can.

We need hardly say your colonles should be all strong; our experience this spring with small, clusters of bees has convinced us more thoroughly than ever of the bad polley of attempting to do any thing with eolonies whose Queens are crippled in their egg-producing powers, by want of bees to cover and

care for the eggs and brood.

Very small nucleus hives, seem to answer very well in the hight of the season, but taking all things into consideration, we should feel much safer in recommending such a hive as the standard with a close-fitting division board. Bore a hole through the back end for an entrance, and adjust the division board to accommodate two or three frames. For fear the quilt might allow bees to pass over the top of this board, we will tack the quilt to it

slightly.

Place in this apartment about two frames, partly filled with brood, and a third with both honey and pollen, with the adhering bees on As soon as they have become organized, which may be known by their gathering pollen and repelling robbers, we are ready for Queenrearing. Instead of depending on a book, or a slate and pencil we should very much prefer the Queen Register cards, illustrated on the cover of this No. From your choicest Queen, hnported if possible, give each nucleus a piece of comb containing eggs, at least once in every threedays. As the original brood will soon be gone, all Queen cells constructed by whatever accident, will be from your choice brood, and may be used without besitation. quite a task to cut combs so as to have these picees fit nicely, and quite a number of devices such as small sectional frames of wood, or thin thu, have been used; but we find quite a difficulty in getting the Queen to deposit eggs in such divided frames, as she does in a whole brood comb; again, taking a whole frame for each uncleus every three days would soou rob our choice Queen, besides our nuclel could not care for oue tenth part of the eggs, if we did.

We last season, cut our comb of eggs into small pleees, but in that case we were obliged to cut holes in the nuclei combs to fit; a difficult, besides being a tedlous job, and it spoils the beauty of a great number of fine combs, in a short time. Of course, after all this, we have a remedy to offer, and 'tis simply to get a new hiscult cutter of your tiusmith, and file the edge of the tin to a sharp knife edge. Cut a larger hole in the back, that you may push out the piece of comb readily, and by turning your entter around as it goes through the bases of the cells, you may cut picces from two combs and swap them, in a trice, and so neatly that the bees will make all smooth in a very short time. When you cut a cake of eggs from a comb, push in the piece that came out where you made a place for it, and when you have cut as many "eakes" out as you can, give the whole frame with the remaining scattered eggs, to one of the nuclei. When you can make all this work to suit you, as we feel certain you all can, we'll give you another paper.

A little oil will make the cutter work more

smoothly.

P. G. objects that we have not given the reasons for advising that the nuclei be given fresh eggs every three days. They are fourfold: First, that their population may be kept up; secondly, that all hands may be kept employed; thirdly, to keep the bees at home when the young Queen goes out, and lastly and most Important of all, that there be no possibility of cells or Queens being reared from any other than choice brood, even should some accident happen to the Queen.

ARTIFICIAL SWARMING, consists simply in giving these nuclei, as soon as they have laying Queens, combs of brood, from strong colonies, until they are good colonies of themselves. See page 72, last para-

graph.

### ALL ABOUT SHOKERS.

[ALL WE KNOW ABOUT 'EM.]

R NOVICE & Co.—Please give us the easiest and best method of smoking bees. This may appear to some of your readers a very simple request—that any one knows how to smoke bees—well I must couless I for one, do not. I have been using a short iron tube with a ping of wood at each end, the plug at the firing end removable. I get a full share through this end into my eyes and nose. I snw Mr. E. Kretchmer's advertisement, A "Bee Pipe" to direct the smoke where needed, eyes and nose perfectly safe, price 40c. I ordered one forthwith—rec'd it, loaded up—the soft solder metled down, my new 40c. the smoker tumbled down—burnt my fingers—eyes and nose received full charge. Mr. Quinby's blacksmith forge arrangement is too big and unwieldy—I apply to you for relief—please help, "Numpe."

Our first smoker was tobacco, rolled up in a rag, and we blew the vile stuff in their poor little faces and eyes under all circumstances and conditions, and at all times, whether they were cross or not, and many times when they stood in the door of their own domicile without any feeling of ill will, or evil designs toward any one on the face of the earth. But smoking them was a part of the programme, and smoked they must be, so we thought; and we really pity them now, when we look back and think of it. After a while we got ont of tobacco and tried the rags alone and they did very well; pretty soon Mrs. N. got out of rags -we burned such an awful sight of 'em-and 'twas such a bother to be fussing so much, rolling them up etc., before we could do anything, that we felt grateful to Dr. C. C. Miller, now of Chicago, when he paid us a visit and demonstrated that rotten wood was not only as good, but even better. After that, we had our chunk of rotten wood, and went on our way rejoicing until we burned up a hive of fine Italians, by sparks blowing in the sawdust. Then we read over the A. B. J. and made a tin smoker with wire-cloth and a knob to blow through, this worked beautifully to be sure, but who could watch a smoker to see that it didn't "go out" when intent on the interior of a hive?

Well, it had to be tinkered so much to be kept "going" that we got out of all patience, at being obliged to fuss so long just to open a bee hive, and so we threw it away-no, we put It "in the loft" and by the way if that loft isn't getting to be an "old euriosity shop" we don't

know.

Now 'twas Gallup we think, who said a pan of chips was just as good as any thing, for it could be set one side and would burn in any half a day; and if you found you didn't need it

at all, why, all the better, but 'twould always be ready if you did want it. We never like great clumsy implements so we got a nice little tin basin, and it worked beautifully till the pesky thing got hot and burnt our ilngers, when we picked it up excitedly. If we remember rightly we set it down again, and made some remarks; can't say now what the remarks were but think they were not concerning the weather.

Shortly after, we saw Mrs. N. using a very pretty, small, enameled sance pan, in her culinary operations, and we innocently asked if

the handle never got hot?

"Certainly not. See how thin and light it is." As she persistently declined listening to any proposal to trade it for our tin basin, we bought a "bran new one" for 40c., at the "tin shop," put in some coals of fire, some rotten wood, and from that day to this, we have had no trouble. Fire will keep in it an hour or two, any thing will burn in it that is dry. For a brisk smoke in a hurry, we sprinkle on a little saw-dust because 'tis always handy, and if placed at the windward side of an open hive, the cloud of smoke that arises is all that is many times needed, and it requires almost no attention. We should add before concluding, that we have a square tin box-bought at the druggists for a few cents, (they get them with Castor oil in, or something) large enough to set our sauce pan in, out of the rain, and also to contain the fuel, that we scatter around, when we wish it to go out. The opening being on the east end, our fuel is always dry, and when scraped into the sauce pan with a few live coals from the kitchen stove, it is all in running order, and the faster we travel about with it the more it smokes.

We can't imagine how "eog wheels" or "bellows" would add to its efficiency, and when we take into consideration that 'tis very often allowed to smoke away for hours without being required at all, it seems to us that its greatest merit is its simplicity. Occasionally a stubborn colony will need considerable smoke, but the practice of "smoking" them until Queen, workers and all, tumble "pell-mell" on the bottom-board, when they haven't even "said a word," it seems to us is barbarons, and he who does it should have the "machine" pointed at his own eyes until he sees how it is. Now don't undertake to use ntensils made with sol-

der, for they will just prove a bother.

At least two persons, whose eyes will meet these pages, have tried old brittannia teapots, and when the block tin melted and caved in, they concluded they wouldn't do "first rate."

P. S .- "P. G." remarks we have only considered one side of the question. The other side is, that occasionally our "pet smoker" gets going at a rate that sometimes makes one think they had almost as lief be stung to death, as smoked to death; to which we reply, 'tis a matter easily remedied; take out some of the fuel and make it "go slower.

A subscriber from Middlebury, Vt., writes; A substriber from Anducepury, v.t., wittes, Wormwood was first used by us in subdning bees in the summer of 1872. We were almost overpowered by a swarm, and had tried a great variety of articles inch as rotten wood, rags, tobacco, cathip etc., when any son, a lad of twelve years proposed to try wormwood; and we were happily supprised at our success, and now I would not be hired to be without it.

A. C. Hooker.

and the same and the same same of the

## Heads of Grain, FROM DIFFERENT FIELDS.

ESSRS A. I. ROOT & CO.—Lamitrying for Bees and Honey." I have nearly completed my high and Honey." I have nearly completed my high fence of plants, on your, plan by in-Aplany. I, have nine colonies in good condition at present; lost almost all my bees last whiter, by bad management if think; I will try to do better by the funite. "I read line A. B. J. and GLEANINGS with the greatest innighable interest. I instead, if the Lord permits me to fix my bees and Aplany nice." Success to you and GLEANINGS, and may you long five to strengthen the "Bugitten" and such beginners as your bundle servant. Parkersville, Kye Dec. 22nd, 1878. " E. EARRINS. We are right by your side friend J. ", we are containly going to try and do butter has which to

certainly going to try and do better, but whether we shall succeed, or not remains to be seen; We trust your nine colonles, are nine this

FRIEND NOVICE:—I have 23 out of 25 colonies, wish they were all in about 15 hives with the best Queens-think they would be more profitable than as they are; they are gathering a little poller but no honey. Those that were the best last fall are the best now used the hear to keep them warm in the house-see no bad effect from it-endeavered to keep the temperature from 40 to 45.

Hart, Mich. May 2nd, 1874.

Hart, Mich. May 2nd, 1874.

FRIEND NOVICE:—I have been trying to keep bees in Texas four years. This is certainly a fine bee country, as we have no expense or trouble in wintering bees, and there is almost mi chilless variety of flowers, from which bees gather honey. The best that I have a knowledge of, is the horse mint. I do not think however after all, that bees gather more hence here than with you, as the money season is frequently cut short by dry weather, and perhaps on an average is not longer than in your State. The advantages here are, no expense for trouble in wintering, and facilities for early Queen-rearing; last fall I put and facilities for early Queen-rearing; last fall I put the Queens in my small hives or boxes, made to hold three frames, with a smilicient number of work or sa an experiment, and this spring. I had cight good tested Queens as the result, shall try it on a larger scale next winter. I opened one of my. Italking colonies to-day, from which I had removed the Queen mine days since, and found 31 Queen-cells; many, of them were so close together that I could not cut them apart without Injury. I never saw, or keard of age, many form which I had been hopes. apart without injury. I never saw, or heard of as many Queen cells in a hive before, did you?

Austin. Texas. Apr. 6th, 1874.

MR. ROOT, Dear Sir.—Two colonies of the ten in the bank cellar are confined to their hives find have no chance to lly, only when set out; one of the two colonies has as fine a looking Itahiau Queen as f over saw; she was reared last June and has not brid anegg that I can find up to writing. The other had, a egg that I can find up to writing. The other had, a line Queen which must have stolen, into the hive late last fall and killed the Italian Queen. I killed her Murch 18th, the colony had as nice a capped Queen as is often seen, desiroyed ber and gave them brood and eggs from an Italian stock.

April 9th—Had a hatched Italian Queen, April 19th—Looks nice, but no eggs and no drones to fertilize her.

April 19th—Looks nice, but no eggs.

to fertilize her.

CORN STARCH DID IT.

I have been trying corn starch for polices: Melted caudled honey without water and while warm-mixely in it a table-spoonful of dry starch, to a half-pint of honey, and on the 6th day of April strewed it on top of frames of a colony on summor stand, that had no pollen, brood or eggs. They ate it readily. They gathered no pollen up to this date, April 19th, at which date I examined them. They now have eggs and capped and uncapped brood in two combs.

I have used corn starch differently propared on other colonies, but the result not so decided.

Fire heat in cellur works right. No loss in bees or colonies. Old bees as strong to-day as first of March, that is, the loss of the old wintered bees is imperceptible. Yours truly,

Penhanda, O. April 19th, 1874.

ble. Yours truly, Penlusula, O. April 19th, 1874.

We have this spring for the first time noticed Black colonies that had brood, while the Italians had none. One Apiary of 27 colonies -Blacks, wintered finely in a neighborhood

where the Italians have nearly all failed. The only particular difference in treatment that we know of, was that the Italians were used for Queen-rearing until quite large and the Blacks were in box hives and gave no swarms and laid gao treatment." Twill be advisable to "go slow? forming conclusions in the matter, but if the Blacks do really war more broodearly in the spring twill be well to know it.

Tis very, likely the Italians in their eager

, wr'd

ness, have flown out during our bad spring of weather, and got lost when the Blacks did not... Before being positive that the "tablespoonful of starch" had any agency in the matter, should we not decide by experiment whether the result would not have been the same, had. that been omitted, from the honey fed 2.

Will you please describe the "Straw may in Glean-INGS? How are they made? how thick are they? what are they sewed with? or are they brilded? I know how straw hives are made. Anything like, them? Tranks for wax extractor. Have just made one-cost 80 ets.—works good. That plan of H. Palmer page 29 and may plan, page 16, will work in conjunction nicely as I junder struct it. Bees will store honey as far from entrance as possible.

Waterbury Conn.

Very well, just wait justil we fix a heading.

STRAW MATS, HOW TOWAKE THEM,

From Peter Henderson's excellent work entitled Gardening For Profit, we glean the following :....

They are always made at home, during wet days or stormy weather in whater. The manner of making them is very simple, and will readily he learned at the first attempt. The "purjahes," for winrys, are formed of five strands of a tarred string, known as "marline;" these are tightly strained to inches apart, by being attached to five strong ualls at bottom of a wall, corresponding with the same number, 7 feet from the lottom. Agains these strings (beginning at the bottom) are laid small handfuls of rye straw, the entistide outras long and straight as can be promred; this is secured to the uprights by a lighter kind of threed string, by taking a single turn fround the unfight and the straw, and so continued until the mat is finished. Some use a frame to which the strings, forming the warp, are attached.

This allows the operator to have his work upright or horizontal, as may be most coavenient. Two working will make about five mats in a day. When finished, the mats should be 7 feet in length and 44 feet in width, two being sufficient to cover three sashes. The reason for having them may be finches to ovortap at 10 pand bottom, which are the most necessary points to secure, from frost. In making these mats they may be donstructed of sedge from the marshes, or saft meadow hay, when first in population, however, that they may be made as light as possible, one inch in thickness being quite sufficient, By care in handling them, these mats will last for six or eight years."

The mats for Hives, would not need tarred. string, as they are not exposed to rain and sun, and the distance and number of the strings as well as the size of the mat; should be arranged

according to the size of the hive.

In a second letter, friend K. explains that his 80c. wax Extractor was made by using a lard pail, an old wire cloth dish cover, and sundry other utensils found at home, so that' 80c. was only what he paid the tinner.

There seems to be a diversity of opinion, as to whether bees prefer storing nearest, or farthest from the entrance. In our opinion, 'tis governed more by other circumstances, than the locality of the entrance.

FRIEND NOVICE: -- Please iet me know through GLEANrkes, how a frame like this would be. D. N. KERN. Shimorsville, Pa.



Well, we should think it would be tri-ungular; so far as practicability is concerned, we have known such hives to give very fair yields of houey, as in fact we have, hives containing frames of every size, shape, and dimensions, simost. The principal objection is, that it does not enable the becs to keep in a compact cluster, the sharp corners belug very unfavorable in that respect. The Idea has formed the basis of several "patents," but we believe it has been invariably abaudoned after a short trial, like the great bulk of the patented devices in general.

What time of day do you consider best for examining hives, or extracting?

Any time of day when the bees are at work; and the more they are flying the better, always providing no robbing is going on.

How do you examine a hive in early spring and ascortain condition, when it is continually cold, as it has been this spring? I waited weeks to see what condition mine were in after being moved twice. They told me I must wait for a warm day, so as not to chill the brood. It was so cold most of the time that in trylug to examine them, lots of bees would fall down chilled. I road about persons examining in oarly March, but can't see how they do it unless they have different weather. About how should the thermoneter stand to make it safe to expose brood?

MRS. E. M. MUCHLER.

In this last matter, we fear we the reality up.

In this last matter, we fear we are really unable to give any advice that would help you, unless it were "don't." Of course if bees are starving they must be fed, but otherwise we should not open the hives unless the weather is warm enough for them to fly. Such days usually ocenr in March and April, but when we have such unfortunate seasons as the present, we really know of nothing that can be done. We have no reports from those having kept their bees in the cellars until the "flowers bloom," as Quinby advises, but feel sure ours would all have dled ere this time. If we could manage to have brood-rearing go on while the bees were yet confined to their hives, it might do. We have utterly failed in such attempts, but should be pleased to hear from others.

There were 40 stocks of bees of the Apiary I am now managing, whitered in the cellar without loss (natural stores). Were put in 28th of Nov. '73, and put oat March 18th, '74. Cellar was quite damp and many combs monided on that account. They are doing finely now and taking in dampened sugar whenever they can fly (honey also at times) without showing signs of robbling. We broaght them to this condition gradually by feeding dry sugar first, and robbing that was being earried on extensively, before commencing to feed, by some bees brought from Tenn., has now entroly ceased.

D. Lyons Brown, Indianapolis, Ind. Indianapolls, Ind.

My bees of which I have i3 stands (all Black) are doing well. I intend to get some Italian Queens this summer, but think it will be impossible to breed pure Queens from them, as our woods are full of flack bees. J. S. Rugers, summer, Columbia, Texas, April 15th, 1874.

So far as honey is concerned, you need have no fears but that you can get the full benefit of the Italians, even under the circumstances you mention. Rear all Queeus from one tested oue; persist in this every season, and Italians will soon be the rule and blacks the exception.

I want to Italianizo as soon as possible. Have though I would like to get the dollar Queens. Some bave told mo that they would be poor things and would not pay. But I feel just as though I could trust Novice, and if you are going to have dollar Queens, I think I will try a few, if I can get them in season.

Manchester, Iowa.

Manchester, Iowa.

What we have advised as "dollar Queens," were to be precisely the same as other Queens, only that they were sold as soon as fertile, and before they were tested. He who would sell Queens known to be poor, as "Novice Queens" as one advertiser expresses it, would be doing a dishouest act, for our purpose was to have them sold before the producer had an opportunity of knowing whether they were of extra value or not. Of course we should expect any honorable man to tell us if a Queen were poor or worthless, if he knew such to be the case.

We do not expect dollar Queens can be reared early in the season. Those who want Queens in May and June, must expect to pay such prices as those fortunate enough to have

them for sale, may choose to ask.

Oh yos! About my beos; as I told you, they were klifing their Queens. I lost 6 out of 20, in a day or two, but the very day that I wrote you I filled one frame with syrup for each hive, and have done tho same twile since, and had no more trouble in that way. The Queenless ones all pegged out but one, which is hatching eggs very satisfactority at present. I think now that low stores and as you say "nothing to do" was the trouble. Cold, cold, nothing but cold, and the bees nothing to do but to eat what you feed. Valley Mills, Ind. Apr. 23rd, 1874. J. J. Willton.

Friend W. wrote us in March, that his bees were killing their Queens every day. We artvised that they should be fed-kept busy at something, whether they had plenty of food

or not.

something, whether they had plenty of food of not.

DEAR NOVICE:—If eed as though I wauted to take right hold of your hand, but I suppose I can't, so please send me all the Gleanings in Itee Culture. I should have sent on last year but my health was so poor that I had little ambition for anything. The seasen was very short last year, the honey harvest only lasting about three weeks, but during that three my hundred stocks (I had about 112, but the surplus came from about 100) were able to store enough for whiter and give me 4500 ibs. In boxes for market. I have all my bees in one place. In the fall I packed is colonies in saw-dust, or packed saw-dust at the sides and on top in place of honey boxes, and left them on their stands; I put 24 colonies in the ceifar, and on the 1st of Dec. I left for California where I spent the winter, leaving directions to have each hive examined once in two weeks, to see that the entrance did not get clogged with dead bees.

It was hard to leave my little pets thus behind me in the cold, and although I cujoyed the pleasant climate of that strange land, it was most pleasant climate of that strange land, it was most pleasant everturn home again, which I did on March lith, after an absence of three and a hulf months. On reaching home on the evening of the 16th I went to one live out of doors and gave it a little thinup, whereupon the bees inside set up a joyous welcome, as much as to say 'we are all right, don't worry," Next day I examined every live out-doors and fu three cellar; all responded, and lator I carefully examined every live and found all alter and in good condition, except a few that were Queenless and those had plenty of bees. The 96 out of doors wintered in-doors showed some signs of dysentery, those out of doors up sligns of it. Those stocks wintered out of doors appear to be much the strongest in numbers this spring. April has been very cold, but little brood to blives yet, especially. those wintered in cellar.

Hurrah I for a bag of saw-dost over the brood chamber,

We should have more faith in the "bags of saw-dust," were it not that bees so often winter well under almost all circumstances, 'tls hard to decide to what particular eircumstance the credit belongs. Strong colonies would doubtless get along well prepared in that way, but we have so many times seen the evil results of depriving weak stocks of the benefit of the dlrect rays of the sun, that we think considerable caution should be used in deciding to adopt such methods as applicable to our Northern winters generally.

FRIEND NOVICE:—I am not an expert in Benkeeping, and I don't know that I can write anything that will be very interesting. I have keep a few stocks of bees for eight years in the old box hive, I thought all that bees wanted, was a hive and a super and they would do the balance of the work themselves. For six years I didn't got enough honey to pay for the nails I used to make their hives; I got hold of a Bee Journal and read it, and soon found I was in the dark in bee-keeping. I have been using the American hive for two years, the first year I got from three stocks Blacks) 6i lbs. of surplus and no increase, in 1873 I took 135 lbs. surplus, and made four new swarms. Bought two stocks Italians last fall and have now 9 stocks all toid. Am going to Italianize all my Blacks this spring, they are all in good condition. I have nooe with less than 4 cards of brood, one extra stock has 9 cards brood that will average 6x10 inches square. Wintered on summer stands—got extractor caloniating on taking, well PII say 600 ibs. this season if factorable; for fear of being ton tedinus I will quit for this timo. Long life and success to Novice and GLEANINGS.

For the Simplicity bive (Hangstroth) what stand

For the Simplicity hive (Langstroth) what sized blocks would you use provided the entranco was the same as in Langstroth life? I think of trying one each way, the bottom-board could project a little as in the old form of Langstroth.

Would it not be botter for me to adopt the old Langstroth when the same as a beginner, and for Nucleus hives have frame as a beginner, and tor Nucleus hives have frames just one half the size? Lask you because it seems the most natural to my mind, easily transferred etc. How deep is a Simplicity hive (exact) when etc. How deep is a Simplicity live (exact) when completed? Enquiries.

Bollvar, N. Y. Apr. 25th, 1874.

Blacks for the L. filve should be rande so as to just close it, when both are turned with longest side toward the entrance. Dimensions given in Mr. L.'s book are \( \frac{7}{6} \times 4 \times 5 \frac{3}{4} \times 7. \) In using double width hives, with entrance at side of combs, entrance blocks must be used of considerable length, especially with the L Where division boards are used, there is a decided advantage in the latter, for a readjustment of this board, in no way interferes with the entrance, as it does with the ordluary L. hlve. We cannot see that the L. frame Is more especially suited for begluners than some others. Simplicity (Langstroth) is just 10 inches deep when cover is raised.

April 30th—Prospects look very discouraging for hees, worse than ever since I have kept bees; had rye and onts ground March 19th, and thore has been but one day on which they have worked on It to any extent. Snow, wind or cold, every day, snow now over a foot deep, snowed all day to-day, and blows like fun now. Examined two or firee hives last week, they have stopped breeding, not evon an egg to be seen. If ave lost 4 stocks out of 27, saw a man the other day who has lost 10 out of 32, another, 5 out of 13; have not heard from others lately.

In regard to sending Queen eggs, it seems to be considered a failure, but 1 think it can be done safely, eight years ago I bought 20 italian Queens, from St. Albans, VI. they were sent 10 at a time, in small boxes holding a frame 4 or 5 luches square; after taking the Queens out a number of the bees collected in on of the boxes in which a Queen had laid eggs on the passage, and reared a Queen.

Why could not boxes be made of thin boards or paste-board, and enough bees used to keep eggs warn? even if it cost more than 25 ets. for eggs from a choice Queen customers could well afford it.

May 1st flave been shoveling open road! how is that for early swarms?

May 2nd.—Cool, lots of snow yet.

Am not discouraged at the poor prospect. Because paid well heretofore, and believe they will yet.

Galhipville, N. Y.

BENJAMIN FINCH.

Such a plan might be made to answer, (in fact we attempted it last season) but so many bees will be required that with the brood to sustain them on a long journey, 'twould be rather bulky by mail. As the Queen in such a ease must generally be a hybrid, would it not be better to put in laying Queen after we have everything ready, and charge a dollar?

Two years ago I found a wild swarm, and another a year ago, and one this year on 24th of March, on a bush—bo't two Italian Nuclei less than one year ago. Now have 10 Italian stocks with Queens—most of them not very strong—and 5 common stocks. Just now bought 7 common stocks. I wrote you I lost my first Queens except what I used, and sold only one.

I am taking great pulns for purity; I breed from warranted stock and could give the best testimonials of integrity—will soon have more Queens but who will buy them from me? Of course I must have them laying and sell for one dollar. Some of them are dark, shall I reject them?

I am the first beginner in Italians and movable combs, hore but sir there is a perfect furor of exeitement at my success etc.

J. B. Ramser, M. D. Albeville, Vernitlon Parish, La. April 27th, 1874.

Unless the Queens are quite dark, we should

Unless the Queens are quite dark, we should assuredly use them, if we were satisfied they were from a good mother. The most profitable Queens are often rather dark in color, but we should be suspleions of a mother, that gave many dark colored Queens.

Friend R. asks "who will buy them?" now eannot we "kill two blrds with one slone" by

glving the following:

A. I. RUOT & CO. -Please on receipt of this send mo word whether you have any of those "One dollar Queens." I want one immediately for a Queenless stock bolonging to a friend. I got two of you last year through S. S. Shuster; this friend of mine also got a Queen; we like them very much, will you please answer this and tell me the earliest time you can send a Queen and I will send the order for \$1.00.

Frenchtown, N. Y. May 4th, 1874. "A. W. LUNDY.

I moved my Apinry this last winter about two miles from its former illace, and put it up on the bexagon plan eight feet apart, and have lost one third of my colonies by my bees gradually quitting or losting their hives, and entering others. I almost daily see laden worker-bees, seeking to enter hives that are closed.

Now I would like to know what the matter is, and what to do. Yours truly,

Gullooka, Tenn.

If your hives are cicht for your Hy feet all the former in the feet all the control of th

If your hives are eight feet apart, we feel sure the arrangement can have nothing to do with your trouble. Bees are many times kept suceessfully, in strait rows, as close as two or three feet apart, although this is perhaps not advisable. The haxagonal plan as we have given it, gives six feet distance from center to center, and we have never seen any trouble from bees mistaking their hlves, nor have we ever before heard of a complaint, although many such are now in use. As this shape very materially lessens the labor of the Apiarlst, our friend should be quite sure he is not mistaking the eause of the trouble, before he draws a conclusion.

Our hives are all painted one color-white, and we prefer this color because dark colors are apt to become too hot if the sun should ehance to strike them in very hot weather. We believe friend J. that experienced Bee-keeper's can give you ample testimony that 6 feet apart is perfectly safe. Most Bee-keepers are aware, that stocks when first set out on a new location, sometimes get badly mixed up, even

when the distance is considerable; as our Apiary was peopled gradually, we of course have seen no such trouble, and were it not for the danger of young bees crawling into the wrong hive when extracting, we should have been tempted to locate them still closers.

The quaint traths contained in the follow. ing are so much better told in our friend's own language, that we have decided to give it just as it comes to ust "Fig." curtain arrangement" has certainly worked well in his case, at all events. events.

ins certainly worked well in his case, at all events.

A.T. ROOT & Co., —I will give your a few words about may bees; we have a fate spring; we had not many finedays, yet sometimes we have halfa day sumshine, then it gets cloudy again, but my bees did work on rye flour every suntive day from early lest, my to this date. April 21st. They commerced forgot reaching on the every suntive day from early lest, my to this date. April 21st. They commerced forgot reaching and he had been any more. But I did not out that they would take it-longer if they could get it. I have got eight colonies, and they did carry about ten quarts of rye, flour in their lives. My bees are all stepns, they would not in their lives. My bees are all stepns, they have got eight colonies, and they did carry about ten quarts of rye, flour in their lives. My bees are all stepns, they got as shed six feet high in from and live foot high in rear. Jagarded fight on three sides; in from I have got leavy my my in curtains to roll up or let down at with the every fine day. I roll them up, on cloud, and wholy days I teave them down. I have be curtains down every night, that keeps the cold air from blowing in at the entrance. I lost one snall colony, if got shour of honey and I tried to feed it with syrup in one of E. Kreichmen's Bee Feeders, of Coburg, fowns 4-but the feeder on the top of the life, and they look the syrup down in a hurry, but one of my hybrids rolbed them of their syrup in the day, what they would carry down through the might time. I had the entrance small so that only two bees could pass, I always thought if we would be carreful and have no sweets around the Aplary there would not be much damage, about robbing, but I think there is a screw loose somewhere, at know a man who lives albout two miles from my house, he does feed his bees on plates in the year every spring, and he never had any robbed. I thought I did know more than he did, so'I fed mine on the top of the hive and it got robbed.

Shinersylle, Pa. April 21st, 1813.

My bees wintered well. I have then in a dry cellar, but not a still one I assure you, for were there not two young bee-keepers rolling and transling over their heads, in such a manner that which one was down there it seemed as if pandemonling had broken loose? If those bees were the worse for it, I have yet to learn it. All came out allve, but on the first day's light two of them "go-ed" out and united with other lives, leaving brood, eggs, pollen, and loney; Please excuse my garrulity, but while I think of it, I would say.

I would say A TIMELY WORD IN REGARD TO POLLEN.

A TIMELY WORD IN REGARD TO POLLEN.

I will tell you how I get plenty of it for nothing, and it seems as If you might do the same. From the, include of July to middle of Ang., I drill he both sweet and common field corn for late green fodder for our cows, and the begs will work on it mull the frost has killed it; even after light frosts had killed (last fall) the outside and tops of the highest; there was some left underneath that was not touched, and some not even the tops garlanded, which the bees worked on, the middle of each pleasant day, mith the season closed. I had buck-wheat near the corn, and while hu bloom it was hard to tell on which the bees were thickest. If you have a cow and a plead of land, try it, and no doubt the testimony of honest old roan in the milk bucket, and also that of the honest busy bee, in the stores of pollen, will corroborate all I have said in regard to it.

Greenville, III. May 12th, 1874.

Much obliged friend II. Our bees did get

Much obliged friend H. Our bees did get considerable pollen from the eorn last season, until the grasshoppers contested the matter so hotly that they were forced to give it up. Let's see! We wonder if we can't lay the blame of our losses to the grasshoppers? It never occurred to us before, and it's quite a relief to

be able to lay the blame somewhere; no-mitter, where, so some of it is off our own shoulders. We really believe "corn starch," would ders. We really believe "corn staren" would be a success if the best could take it direct from the own blossoms; sweet corn too, is an experiment that nearly all of us can try, with almost a certainty of laying the folder pay all expenses. all expenses

nish a correct answer. From experiments made last season, we would estimate it at a days: Thirty bees are more than are generally sent with a Queen, .....

Please inform me the price of your tea-kettle Beefeeder, flow it is used, and how constructed. With how many bangstroth frames of broad, with bees on ean one shart a swarm ?

Flattlock: Ohio that is the wind of the teach of the benefit of those who don't, we will go over it again.

go over it ngajil. Alba-About Tea-Reptile feeders. Tell your tin-smith to make you a tea-kettle .: of the cheapest tin without cover, handle, or spout. Salver a flat piece of rather coarse perforated tin over the place where the cover usually, fits; put a linge sized screw cap, such as is used for oil cans, at one side of the perferated that this is to fill it up by, and answers: as one of three legs that support it just over the cluster of bees, in an inverted position. The other two legs are made of a strip of tin 11/x4 inches folded like a letter V; these are soldered at equal distances from each other and from the screw cap, just outside of the per-

for ated tin cover. We place them directly on the frames, but Adam Grimm uses them over one of the holes in the honey-board; in that case's rim of tin high enough to allow the bees to go under, is perhaps latter; but when used on top of the frames we prefer the legs. To use it with the Simplicity hives, a second story should set over it while weding; with the Standard hive, remove a few frames and put it one side of the chister. If they commence to build combs against it, as they will at times with such an abundant supply of food, put in a division board, reaching within 1/2 inch of the bottom of the live. We prefer these feeders to all others, because with little labor your bees can be given an unlimited supply, for any purpose, Your tin-smith should make them for you for \$1.00 each, or 75c. if you order a dozen at a time. If he won't do it, tell him they will in Medina. If any body says it infringes on any patent, tell him he is a humbug, and that if he wants proof of the invalidity of his claim, to write ns.

Two combs of broad, mostly sealed, with the adhering bees, and a laying Queen, would make a colony, if you could give them empty, combs as fast as needed, and the operation is We have performed not later than June 1st. done this with *Italians* several times, but have failed with Blacks. If they have to rear a Queen, say 4 combs; if they have to build the

eomb also, say 6 combs of brood.



## DEVOTED EXCLUSIVELY TO BEES AND HONEY.

Vol. II.

JULY 1, 1874.

No. VII

### HOW TO CONDUCT AN APIARY.

No. 7.

E fear we shall be obliged this month, to let the fortunate none but full colonies and are doubtless busy with their surplus honey, run the machinery their own way, while we consider the wants and needs of the unfortunates like ourselves, who are building up again from a few mere

renmants.

When all the spare combs can be put under the supervision of the bees, by June 1st, but little or no apprehension need be felt of the depredations of the moth miller; but when 1000 combs or more must be kept safely through the warm weather, or until needed, it may be a scrious matter as to how best to do it. A little knowledge of the habits of the moth at such a time may enable us to save much needless time and manipulation. We believe it has been well demonstrated that freezing, entirely destroys the moth, worms and eggs, and accordingly hives that have been destitute of bees ever since freezing weather, if kept perfeetly closed, that the moth may deposit no fresh eggs, may be considered safe. It should be remembered however that they will in the summer months, deposit eggs around the cracks, etc., the larvæ when hatched from these make their way inslde, soon change into the cocoon, thence into a moth, and when once a laying moth is inside a hive of combs, destruction follows very quickly. On page 27 Vol. 1, we are informed by a subscriber that, "combs hung in the open air, that is, not in a hive, at a distance of 1 or 11/2 luches apart, are almost secure from their depredations

This although seemingly strange has proved to be the case in at least two instances, and even when combs are left in the hive, if they are spread so as to be at least an inch apart, they are seldom froubled by the moth.

Although little danger may be apprehended from chilling brood during this month, by spreading too much, yet where the unsealed brood is thus pushed out-side the cluster, the effect is bad and wasteful; when you have a hive full of bees there seems to be little danger, and if 'tis a possible thing all hives should be full before commencing any kind of artificial swarming or Queen rearing.

A single story hive for instance if full of bees, could spare a frame of brood once a week without feeling it. If we have a dozen hives or more, that will do the same, we may expect to be able to produce at least two new colonics every week. When these new ones are also

able to spare a comb with the rest, we shall have colonies accumulating at the rate of 3 a week, then 4, and when our number gets up to 25 or 30 one new oue per day. This plan will soon re-stock an Apiary, and it has the advantage of not reducing any blve so long as all are kept rearing brood. Later in the season we would give the new colony 6 or 8 combs, and then they will be sure to be all right no matter when the season closes. We once increased from 11 colonies to 48 in this manner, and wintered the whole without loss.

Notwithstanding all we have said about grass and weeds in front of the hive during the working season, we rurely visit an Apiary where such ueg.igence is not the prevalling fault. We have seen a single spear of grass not more than three luches in hight, knock down half a dozen heavily laden bees in suceession as they sweep laboriously toward the entrance, which they would have gained had it not been for this trifling obstacle; this occurred in a period of not more than five minutes. Now how many bees did the same blade Interrupt in a whole day? Where a thicket of grass and weeds obstruct the entrance, the bees almost all of them tumble somewhere near the hives, and panting from the exertion they have made, crawl in as best they eau, rejoicing with a glad hum, poor abused patient little fellows, when their home is safely reached at last. Many will say, "Oh we raise the hive up, above the grass etc.," but that won't do either, for in one sense it makes matters worse; those that fall to make the hive get down, and sometimes never get up. Any careful observer may see bees from their suspended hives, when very heavily laden, take wing again and again, before making the entrance. A broad board before the entrance 'tis true is a partial remedy, but such boards warp, and give a lodging place for toads spiders and bugs, underneath; if you have only the bare ground, kept elean, it is firm, solid and simple.

We would set the hive directly on a frame, made of two inch strips, a little smaller than the hive; this would raise it two inches from the ground, but we would bank sawdust up around it high enough to cover this frame, and this would help to keep down weeds.

Around the entrance to the hive for at least a yard each way, we would keep it clean with a hoe and broom, picking out each spear of grass as soon as it can possibly trip up a bee. That bees take pride in such a door yard is evident, for they may frequently be seen carrying away sticks and dead bees that lie around half a foot from the hive, and the Italians will

even try to pull np grass as it makes its appearance, so great is their love of order and neatness. That it will pay In a "dollar and cent" view can be seen from the following extract from A. B. J. Vol. 7, page 28. It is an account of an experiment we then made with

our spring seales.

"To resume the scales: twelve onnees per hour is one ounce in every five minutes, and this was readily seen while we were standing before the hive. About nine o'clock we noticed a great many bees falling short of the alighting board, which they could not erawl upon, as the hive was suspended, but had to rest until they could again take wing; but they were so heavily laden that this had often to be repeated. By tacking a piece of cloth to the edge o'the hive, so as to drop on the ground, they hammed in as merrily as you please; and the scales then showed iffteen onnees an hour, or one in every four minutes. Now, what do you think about suspended hives, or hives on benches? We took the hint and made an examination, and found many of our hives, where the bees tumbled on the ground and rolled over in their attempts to erawl up the painted edge of the entrance to the hive. A three cornered piece of wood sawed rough, made a nice bridge for them. Mr. Langstroth's book suggests the e oth entrance, and we are sure a little aid in that direction will be amply repaid. Give the little fellows every possible facility for unloading easily and speedily, and remember that their little atom of strength is of much importance to them, and that all needless steps or flights should be saved them, as you would save your own."

#### WHAT I HAVE DONE.

EAR NOVICE:—I propose to weary you with a little history of my experience with bees. In the spring of 1872, I got a box hive of Black bees; transferred into Buckeye hive (Patent right, waste of money, and about middle of June, took 25 lbs. comb honey. No hacronse of bees or Intriber yleid of honey that year. In whiter of .72 and '73 procured one other box filve, and two Buckeyes, all Black bees, having four coloules in all, about 1st Jun., 1873. My original stock in Buckeye, died out from cold—too mach appeard ventil thon. Spring ('33) found me with two Buckeyes and one box nive, but the senson was so poor that they burely made enough to tive on; in fact late in the senson, say about 1st of Aug. I dtscovered the box hive, which was the strongest in the early spring, to be culrely out of honey and having before that time procured some of your simplicity frames and hives, I transferred from the box hive luto the Simplicity, and commenced feeding, and the result exceeded my expectations; for the Queen commenced laying immediately (she had no eggs in the box hive had before the 1st Nov. 1873, the bees had increased largely, and had stored mud capped over about 25 lbs. A Collee sugar syrup. In the meantime, I had transferred the combs from the two remaining Buckeyes luto other Simplicities, and before cold weather, had hem all in good condition, save one, which gave evidences of being Queentess; and It was for this hive that I ordered a doitar Queen of you last fall, which Queen I had the misfortune to lose in Introducing. Whiter coming on, I made a hive 48 inches long, and as wide as simplicity is long; intending to remove the frames from small hives huo this long one, and put wire cloth frames between each colony of bees, so as to secure all the heat in a body. I did so and they seemed to do well. The Queenless corony seemed the strongest in the lot, and there was no quarrefug or robbing among them. robbing among them.

The entrances to each section, were about 16 inches apart, and I one day, after cold weather set in well, observed very few bees about the entrance to the Queeniess stock, and on raising the quilt discovered the bees all gone, and on raising the quilt over the

adjoining colony, i judged from the quantity of bees there, that those of the Queenless stock had united with their nelghbors; so I removed the wire cloth frame, and substituted a close litting partition. There wire cloth on. There rrame, and smosthing a close intring partition. There were now two colonies left, having a wire frame hetween. This wire cloth did not fit tightly at the bottom, and on examination one day, I falled to find a Queen in the side that had been next the Queenless colony, and there also seemed very few bees. I conceived the idea that the Queen had died or had pussed nuder the wire frame into the other side, as the bees nuder the wire frame into the other side, as the bees were ventilating or buzzing very intently down in one corner, where I observed they were passing to and Irovery readily. So, supposing they might remain quiet even if the Queen was alive, and in the other slife, as I had read of such things, I removed the wire cloth frame entirely. The next morning I found a dead Queen in tront of the hive, but the bees were quiet and relative. and friendly

I did not know then, whether I was without a Queen I did not know then, whether I was without a Queen or not, but an examination discovered one all right. But in about a week, they killed her, and so I was then in a bad fix. I had plenty of good comb, and scaled syrup, and one very strong Queenless colony. I fulled to find a Queen anywhere here, and it was too cold to get one by mail, so I had to wait until I could get a weak swarm, which I itnally did in Jan. last; and in a few days mitted them with my large colony, and they have been doing very well so far. They are Hybrids, and I have them still in my large hive, single story, and have 22 frames in, with brood on 15 of them; and on the 3rd inst. I extracted 51½ lbs. of black Locust and Clover honey; having extracted six lbs. carlier in the season.

lier in the season.

lier in the season.

They are now storing again rapidly, and the Queen is doing her duty, having been badly crowded, before I extracted. I had my thaner make an extractor by directions in Gleanings at a cost of \$7.50, and it works admirably. I extracted 18 frames, and did not receive a sting. I wear a vell, but never use a smoker of any kind. My hive is low down and has saw-dust in front, and a step or alighting board. I intend dividing when I receive my Queen.

Having now conducted you over the ground I have traveled in Bee-Keeping for a little over two years, I am prepared to believe you are weary and will close by wishing you better "inck" than you had last winter. What Novice has done, he can do again, I am well assured, and believe your disasters of the past, will only serve as guide boards in the future.

will only serve as gulde boards in the l'ature

J. H. CRIDDLE. Yours truly,

Nashville, June 5th, 1874.

We are not weary friend C., but on the contrary tender our thanks, and request full particulars of the future working of your mammoth hive. Our experience with wire cloth for division boards has been quite similar, viz., that they sooner or later get together and you have one colony instead of more.

## WATER FOR BEES.

CONTILEY are robbing the Quinby hive, now," Mrs. N. had said to Novice who now," Mrs. N. had said to Novice who was suffering from a "tormented headache," to use his own expression, one pleasant Sunday afternoon in May. He had often boasted he didn't have headaches, and seemed, so the women folks say, to regard the matter as a kind of feminine weakness that one should be ashamed of, but now he was making more of a row about it than a whole dozen of the weaker sex, and more than all some neighboring Black bees had just discovered that a quantity of combs of nicely sealed sugar syrup were but poorly guarded by a few miserably weak Italian stocks. Under the circumstances Mrs. N. and Master Ernest had been directed to close the entrances of such hives as failed to make a successful resistance, by banking the saw-dust up in front. They soon reported that the robbers were going out and in under the cover of the Quinby hive, it having warped enough to allow this. In this dilemma Novice was again consulted, and was obliged to cease rolling and

tumbling on the bed where he lay, long enough to direct that stove wood be piled on the cover until the cracks were closed. This was done, and Mrs. N. for additional security placed on the centre of the top of the nive a large stone jar, inverted.

When Novice awoke next morning at about

When Novice awoke next morning at about his usual hour—5 o'clock—although a little sader, and perhaps wiser than usual, his head was free from pain, and he of course repaired at once to the Apiary, the scene of yesterday's

troubles and turmoils.

A refreshing shower, that had been much needed had materially changed the aspect of things, and as the locust blossoms had opened during the night, all robbing had ceased and

every thing was lovely.

On turning his eyes toward the Quinby hive which stood under the shade of a dwarf pear tree, he beheld a perfect circle of bees for all the world like beads strung on a string, greedily sipping the rain water from the concave bottom of that inverted stone jar. It was raised up so they could find it readily, was clean, and so shallow it could not drown them, and altogether seemed just the thing. Later, after Blue Eyes was up the numbers had increased, and so intent were they on sipping the pure water, that she could touch them with her fingers without their scarcely noticing the interruption. Of course the supply was soon out, or would have been had we not replenished it; the concavity held about a tea-cup-ful, and Miss Maudie was commissioned to see that they did not "get out." But they did for all that, for during hot days several ten-cujfuls were needed, partly on account of evaporation, and it only remained for Novice to devise a cheap and simple mechanical arrangement to keep constantly full the shallow envity in the bottom of that stone jar. This he did very quickly by filling a quart glass fruit jar with water; a piece of paper was laid over the mouth until it could be inverted on the stone jar, and then the paper was drawn out. Of course when the water became exhausted so as to allow a bubble of air to go up into the jar, a little more water comes down and so on. A quart of water lasts several days, and the receptaele being glass we can always see when it needs replenishing. We were amused this morning to see the usual number of bees around it, and more going and coming quickly, even though it was raining quite briskly. Many of the bees were quite young Italians, that it seems had become so accustomed to going to a certain spot for water, that they couldn't think of doing otherwise even though water was raining down all about them. We are well aware the principle of the above is not new, as feeders on a similar plan are in use, but the plan of supplying fresh water is new to us at least. We have in former years tried arrangements with shavings, water allowed to drip on a board, and a cloth laid over a vessel full of water, but all of them were soon abandoned because they were too much trouble, or were untidy etc., and the bees were allowed to go to distant middy streams, to the pump etc. Is it not a fact that during the working season the workers mostly fail from worn our wings, and if this is the case should we not save them all we can by having supplies near at hand; at

least water if we can do nothing further?

Our 4000 Basswood trees were planted with this end in view, that is, to give them as much forage within one fourth mile of their hives, as they usually get in an area of one and a half or two miles around their hives.

The device we have mentioned can of course be used for out door feeding, and it is perfectly secure from waste; by inverting a tumbler of syrup in a saucer, we can also use it for feeding in the hives, when there is no occasion to feed rupidly. This latter plan has been given several times in print already.

### QUILTS.

UDGING from the number of inquiries, and from the erroneous impression the writers evidently have in the matter we should judge that we had not been sufficiently explicit in regard to the manner of making, and the office of this very useful substitute for the honey-board.

The principal error seems to be the impression that they are only used during the winter and spring, whereas, with hives made with a light cover, hinged on, as we make the Simplicity, Standard, and in fact all hives ordered, a quilt is a positive necessity at all times of the year. If they are omitted, the bees not only get erushed under the cover when it is shurdown, but they proceed at once to gum it fast with propolis, making it necessary to pry up the cover with a kuife when we wish to open it, an operation that is at once fatal to the morals of both bees and owner.

The bees should never be allowed to get above the quilt under the cover at all, and to ensure this the quilts must be nicely fitted. As they are liable to shrink in time, they should be made rather large, and before the cover is closed they should be carefully tucked down ull around so that not a crevice is left open, and not a particle of the quilt sticks out so as to interfere with the close shutting of the cover. Considerable complaint has been made of the bees eating through the quilts, and we have had a little trouble of that kind, but not when proper cloth was used. We visited a neighbor a few days ago who has between 40 and 50 colonies, and could but admire the nice fitting perfect quilts he used; when questioned he remarked that he had used them for two years and had never had one gnawed through in all that time. An examination showed that they were made of very coarse, hard twisted cotton sheeting. They were sewed on a sewing machine, and when done were quilted across with very long machine stitches as in the following flgure.

They were filled with three thicknesses of wadding. Should these quilts he found superior to those we have before described, give the credit to Mr. E. C. Blakeslee of this place, the man of the "rail-way Apiary" p'an for convenience in extracting; and by the way his uniform sneeds in the 'bee business" bids fair to place him way ahead of "us Novices."

## OUR PRIMARY DEPARTMENT, Or First Principles in Bee-Keeping.

[Designed especially for the veriest novices, and those who know nothing of bees whatever. Conducted by a fellow Novice of several years experience replete with blunders, as well as with occasional successes.]

know something about Bee-Keeping. Although 'tis not always the first query, it comes along very soon as to whether bees really pay in the long run. We inform them that our Apiary has always paid us a fair profit, and a few seasons a very generous one, but still like nearly all new industries, in some respects it must be considered quite uncertain. Oftentimes comes the query, "If one is going to devote their time to the business had they not better buy 40 or 50 colouies so as to have an income from them at once?" to which we reply, we should consider such a proceeding not only very unwise, but almost sure to end in failure.

"Well, tell us just what you would advise then Mr. N. to learn as speedily as we can consistently with safety. Give us a short cut that will relieve us of the necessity of wading through long chapters of dry details, if such u thing be possible. Tell us how to act, and let

us be doing something."

With all our heart, and as we very much desire that your undertaking be a source of pleasure as well as profit, please excuse us if we lasist that you commence on a firm basis—do well what you do, do.

WHAT TO DO FIRST.

Get two posts 6 feet long and three inches square, these must be of some durable wood, white oak for instance. If you can afford the trouble and expense we really would prefer that you have them plaued and painted, at any rate do not expect your Apiary ever to be any thing you may be proud of, if you push down some old sticks temporarily, one longer than the other perhaps, and both askew, for such work soon becomes mnattractive and is shunned. Many visitors have admired our Apiary, and thought it no wonder we enjoyed bee-keeping in such a place, and these same persons have declared their intention of tlpping their poor neglected hives of bees up square, and true, removing the weeds, starting grape vines etc., but alas! their attempts were too often but a couple of sticks picked up hastily as we have mentioned, and a few vigorous strokes in the battle with old dame nature, and then they desisted before the "coy old lady" had even had time to yield and bless her devotees with such smiles as only the successful cultivator of the soil knows she ean give.

Select the site of your workshop, for such we shall expect it to be, near the house, and where it ean have plenty of sun; and if convenient slanting slightly to the south. Drive these posts or stakes in the ground, so that they stand east and west and just three feet from each other, measuring from outside to outside. They are to be driven in the ground so that just four feet of them is left above, and they must stand plumb and square; if you can't make them otherwise, get a lever and strong chain and twist them until they are so.

Now nail a strip of plue board 1x3 inches and 3 feet long, on the south of both, and just level with the top, from one to the other; just three feet below this nail a similar one. When the whole is square, true, and plumb, stretch three wires from one strip to the other; these are to be at equal distances from the posts, and from each other, and we would then have something like the following figure.

A C D E A

Let A, A, represent the posts, B, B, the 1x3 strips nailed on the south side of the posts, and C, D, E, the wires. These wires should be galvanized iron wire, about No. 16 or 17, larger would be more expensive and no better. we are all ready to have a fine thrifty Concord grape vine planted directly underneath the central wire D. Of course some other grape will do, but we have found none so hardy and thrifty, and that gives us the strong rapid growth that is so desirable for making a shade for our hives as soon as extreme hot weather comes on. Vines are usually planted only hi the spring and fall, but we should have very much more confidence in your success if we knew you were one of those clever individuals who can plant a vine and make it grow, at any season of the year. You can surely do it if you have a mind to. Go to your nearest mursery man (don't ever buy of peddlers) tell him what you want, and get him to help you take up the vine, roots dirt and all, soaking the soil with water to make it stick together if need be, while you place the whole in a bushel basket for transportation. Make a large hole beneath your trellis, and lift your vine into it as carefully as you took it up, fill in with good soil, and after entting off all the top but one shoot with three or four leaves, treat it just as you would a hill of corn that you wished to do extra well. If the operation is done in hot dry weather, it will probably need watering, and may be shading, until it gets started. We expect you in future to see that no weed or spear of grass is allowed to make its appearance within a yard at least of this grape vine. Since we have our vine planted, and ready to grow, we are now prepared to look up a hive of bees to be located on the north side of our vinc, close to the trellis.

Next month we will consider the future training of this vine, as well as what to do with the Bee Hive.

If you purchase one meanwhile, select one that has lots of bees at work.

#### OUR OWN APIARY.

E have only two losses to record since our last, and this bright Sto, everything seems to indicate we are nearly through our valley of humilation Of the two losses mentioned, one was the loss of the Queen received from Lousiana, she was string by the bees after having been accepted at least 24 hours, the other was the swarming out as we suppose, of the Queen reared this spring in the Quinby hive; for bees and all were all gone, leaving only a small patch of brood not ready to hatch: We believe both eases point out a moral: The former, the uncertainty of any of the methods of introduction of Queens to old bees, and the latter of the folly of having a hive in the Apiary with combs of an odd size, for had not such been the case we should have strengthened them up with hatching brood as we did the rest. In regard to introducing Queens, of those sold last season, it seems that nearly half of them were reported lost in getting them into colonies. Now the plan we adopted with our imported Queen viz., giving her four combs selected from different colonies, each one containing hees just gnawing out of the cells, it seems to us is not very difficult nor troublesome, and it makes a sure thing of it, and, a good colony in very few days. In lifting the combs from the hives we brushed off every single bee, but in half au hour enough had hatched to make quite a little cluster about the Queen, and to-day (17 days later) they are working about as briskly as any colony we have. Of course some unscaled brood will be lost, but if the weather is warm, or the hive be taken in doors for the first week during cool nights, but little loss will ensue.

We have now 16 colonies and some of them are hardly yet able to repel robbers, although we have drawn on our stronger colonies for broad until they have become seriously weak-

ened.

## HOW THE MOTHS NEARLY GOT THE BETTER OF US.

June 17th-On the first day of June, which was a bright Monday morning, P. G., with commendable ambition, repaired to our bee house about 4 o'clock in the morning and pro-ceeded to give it a thorough "setting to rights" which it then was sadly in need of, and so quietly did she proceed, that her task was well nigh accomplished before Novice made an appenrance. In order to reduce the compass of the accumulation of combs and hives from which the bees had died, she put twelve combs in the bives that had contained ten, and thus reduced the number of hives that lumbered up the room. Novice when informed of these proceedings was inclined to remonstrate, but being rushed with other duties, and thinking all the combs had been frozen since the bees died, and that our house was tight enough to keep out the millers etc., we actually let the matter rest without looking at those 12 comb hives until last evening. It is true we carefully looked over a part of the hives that were left closed on their summer stands, removing the combs that became infested, and after picking out the webs and worms as well as we could, placing the comb in the centre of a colony of bees. Twas really amusing to see the

Italians dig out any worms we had overlooked and the promptitude with which two of them if need be, would take a big worm and carry him to "furrin parts." After spreading the combs until each hive contained only seven or eight, without quilts, we had but little trouble. Well, after we had gone over those out doors on the evening of the 16th, as it was nearly dark, we proposed making an inspection of the twelve comb hives. The first comb would hardly come out, 'twas webbed fast to its neighbor; the next hive was about the same. After a hurried consultation the job was, at his request, turned over to Novice and although 'twas nearly 8 o'clock and raining, he proceeded as follows: As no brimstone had been used in our Apiary for some years, he first repaired with umbrella to the drug store, next the hives were lifted down and the shelves were turned up edgewise so that they would hold a row of combs the length of the building. The combs were placed about one juch apart, uo attention being paid to webs or worms; as the shelves would not quite hold all, thus, a few were spread in the hives and left on the floor. Mrs. N's largest kettle was borrowed, and half filled with glowing coals, it was placed over another to prevent its burning the bee house floor; both were placed so near the door, that when all was ready a whole pound of brimstone was dropped in the kettle of coals and the door elosed hastily—the upper ventilator had been stopped by a roll of quilts, and all was tight. The work of death proceeded, and ulthough two half past ten, Novice stood with his uose flattened against the window in the door, until plump eleven o, elock, then he repaired to his rest, but instead of sleeping the sleep of the just, he dreamed alternately that the Apiary was burning up, and of great worms a foot long or less that defied both fire aud brimstone, and not only refused to die but "chawed" voraciously at nice strait worker comb, and when that was all gone actually commenced chewing up the metal corners too.

Five o clock in the morning—Anxionsly Novice wends his steps bee-house-ward; raises a comb from a hive on the floor; as sure as you are alive there the worms are, alive and well. He closes the door in despair, takes a turn in the rain but finally goes back and looks at the string of suspended combs. Ah! They are dead, dead as door nails—all dead except those in the hives on the floor. Of course the rest were hung up high in a string, and whilst the room is undergoing a second funigation, Novice was promptly on hand at business as usual, and is now "deep" in Gleanings.

June 25th—We have now got the moth worms under complete subjection, but very few having been found after the second fumigation of the beehouse, and these were where they were completely covered up, in a mass of webs; strange to us, this mass of webs seems to enable them to withstand, in some cases, the sulphur fumes for several hours.

Our first attempt at rearing queens from our imported mother, gave us eight queen cells, and we have, strangely enough, succeeded in getting eight fine queens from them, by the plan given on another page. Although the queens are not yet fertile, we are giving their nuclei a comb of eggs, as fast as they can use them; "we" are now 24 pretty fair little colonics.

## Gleanings in Bee Culture,

Published Monthly,

## A. I. ROOT & CO. EDITORS AND PROPRIETORS

### MEDINA, OHIO.

Terms: 75c. Per Annum. For Club Rates see Last Page.

## MEDINA, JULY 1, 1874.

ROLL of Honor, is so large, 'twas erowded out enthrely.

MISS ANNA SAUNDERS, and W. J. Standefer, have more orders for Queens than they can fill.

THE yield of honey is reported good in some pinees, poor in others, and extra good in a few localities.

MR. L. B. HOGUE sends us a sample of a new honey jar. It is of filmt glass, very neat, and the price is very low.

WE are happy to state that Mr. E. Kretchmer whose advertisement appears in this number, has abandoned the "right" business. His prices for implements are anite reasonable.

By a series of fortuitous events we find to-day, 26th, three more of our hives well populated, one of these densely, and we are now 27. Will tell how we hive natural swarms next month.

E. C. BLAKESLEE who advertises in this number, rears from an imported Queen that came with our own, and is in every respect her equal. We cheerfully recommend Mr. B. as being prompt and reliable.

WE are pained to fearn that Dr. Hamlin of Edgefleid Junction, Tenn., dled on the 24th of May. The Dr., has been one of our veterans in Bee Culture, has been especially active in rearing and disseminating the Ituilans, und has for many years controlled a farge Aplary.

WE hold ourselves at all times, responsible for the prompt appearance of GLEANINGS at the beginning of each month, but not for any of the Journals with We guaruatee that their respective which we club. publishers receive the morey, and correct uddress, and after that all responsibility on our part eeases.

In mentioning last month, the comb baskets offered by Kruschke Bro's, Berlin, Wis., we omltted to give residence. A sample of the Rape seed, they advertise, sent ús, proves it to be quite unlike our own. Their little book on Rape Cuiture etc., is now malled on recelpt of a stump.

THE Basswood Orehard has recovered from the effects of the "Grasshopper slege" of just summer, and the trees are now waving their thousands of bright green leaves, in a way that seems to say "we're good for barrels of honey if you'll only wait putiently a few

OUR June No. was badiy printed, some Nos. very, and we will with pleasure send a better one on being notified. The Bee World discovered our vulnerable point, and very properly remarked that bad print was as bad, as bad grammar. That's right, if Novices can't keep the "rolls" in order It's their business to get some one that can teach them how.

THE Standard HIve works excellently, and we are Inclined to think comb building goes on with better economy than where the entrance allows a passage of air directly between all the combs. It is possible the same may be said of brood rearing also. 'Tis true the L. frame may be worked in a long hive the same way, but their length makes them much more inconvenient to handle.

WE are so unfortunate as to have no colonies that have us yet required any subdulug to speak of, but yet we have given the wormwood spoken of ln our last number, a trial. It will without doubt, at once quell a colony, that might threaten to disregard the smoke of rotten wood alone, and it is very easily used, for we have only to sprinkle the leaves of the dried herb on the coals in our sance pan smoker.

THE Bee World, for June made its appearance promptly a little alter the first of the month, and we are happy to add with un appearance indicative of much eare in its general "get up". We hope it may receive a liberal support so long as it is kept equal to the number in question.

Terms, \$2.00 per year. We can furnish it with GLEANINGS, for \$2.25 or to our present subscribers for

WE will send eggs and farvæ by mail, from our queen just imported from Italy, for 25c. Those situated so near by, that they can get them the same day they are mailed, will probably rear queens from them. When they are to go a greater distance, we can almost guarantee them to be useless. A great number of experiments were made last season, but they were entire failures, except when they were only sent to adjoining, or neighboring counties. We will send the eggs promptly, but can be responsible no farther for the success of the experiment.

WK omitted to mention that the glass jar for glving bees water, should be supported by three bits of glass placed under its mouth, when inverted, or the water will not present surface enough to give a large number of bees a chance.

Also, under the head of quilts, we should have stated that the space above the frames in the Simplicity two story hives, was necessarily made shailow, to avoid having too great a space between the upper and lower combs, when the hive was used two story. With the Standard hive, nothing prevents having all the depth required for tucking down the quilt with facility. We therefore make the rabbet 1½ by % which, after putting in the metal rabbet, leaves a space between the top of the frames and the upper edge of the live of about % of an inch, which is about right to hold a good thick warm quilt, or a straw mat if preferred, for wintering. for wintering.

WE find upon actual trial, that Quinby's Now Smoker has many qualities that we have not given it credit for heretofore. It is very light and very neat, and perhaps the most ingenious part of it is, that it stood on end, it will burn for an hour, or more if need be, but will go out at once when laid on its side. It will also but will go out at once when laid on its side. It will also drive bees any where we wish, with an ease and speed, and with an extremely small amount of smoke that was an agreeable surprise on first using it. We should be very glad to stop here, and not mention that it all came to pieces before we had used it an hour, in consequence of its having been put together with soft solder, but such is the fact. We wrote to Mr. Q. at once, and he will doubtless see that they are properly made hereafter. When ours got cold we managed to fasten it without the solder, and it is now certainly a most convenient implement in the Aplary. The bellows part of it is exceedingly well made and very light and neat, and as the combination is entirely Mr. Q's invention we hereby protest against its being copied by others without his consent. With this smoker, the difficulties of opening the Quinby hive would be very much lessened.

## DEPOSITORY OF BLASTED HOPES,

Or Letters From those who have made Bee Culture a Failure.

PEAKING of bees etc.—I got my Extractor after swarming time last year. Had a swarming time last year. PEARING of bees etc.—I got my Extractor after swarming time last year. Had suffered by too mach swarming, nevertheless pitched in with it, and took about 4:0 lbs. honey, leaving however, eight out of twenty hives for eap honey, and realized nothing from them. I was taken violently sick the last of August, and was unable to do anything more, until tobseco, corn, and seeding wheat were on hand demanding my whole attention, contenting myself in looking at my bees working industriously on buckwheat, taking for granted that they were doing well. In Dec. I examined my hives and found but little shoney, no pollen, and bees greatly reduced in number. Fed them freely with a mixture of rye flour sugar and honey, (some weak hives had been fed before with tea-kettle feeder). Young bees were soon found in comb. but slast the ice spell in Jan, swept of a number of hives, and the next cold snap, some more. Human like, Novice had to bear the blame, (extracting) but when I examined the hives unextracted, found that in proportion (most of these my best) they had lost more in number, so Novice and Extractor bad to be cleared of the charge.

Conclusion—want of bee bread and inattention on my part in time, reduced the numbers of the lees so that they could not keep up a sufficient heat in tee spell. Food, though searce in the counts, was in abundance on top of the frames, immediately over the cluster and was used freely by the bees until the fee spell closed their labors. Bees died in solid cluster on the combs just under the feed. Hives wintered on summer stands. Several weak stands have united and with saac feed are now safe.

File DOLLARS VIEW.

Interest and labor on 12 stands \$10, each, ext'd \$15.00

THE DOLLARS VIEW. 

Gain by using Extractor with 20 colonies bees, one 

RIEND NOVICE -In relation to bee matters I am in the same boat with romesoly am in the same boat with yourself. I set out 26 swarms in March, 22 of them were strong and healthy. I now have \$1x swarms, and two of these are weak, and one has an old Queen not very prollife. I had two Italian swarms, both dwhidled down to a mere shadow, and only one Queen was saved. Sho is on duty now.

on duty now.

To say that I was blue would convey but a fulnt idea.

I was however soon cheered up by learning from a To say that I was blue would convey but a faint float. I was however soon cheered up by learning from a neighboring bec-keeper who had 100 swarms in common box hives, that he had lost 25 and they were still going it, at last accounts full fail of the 100 had "pegged out." My own and this gentleman's 100, were wintered in the cellar.

Now I have come to this conclusion: that bec-keep-

whitered in the cellar.

Now I have come to this conclusion: that bec-keeping is one of the most innectain pursuits a person can engage in. It is notbing to winter a swarm of bees, but from March mutil flowers come, there's the rub; especially when we have snow until the 3rd of May, especially when we have snow until the 3rd of May, lad I not set out with the determination to succeed I would throw up the pursuit in disgust. But I will wait a little longer and see if the good time wou't come sometime.

It is the old established custom in this neighborhood to set out maples for shade. I have done a wonderfully foolish thing to some minds—have planted the roadside the whole length of our farm, 116 rods, to Basswood. We shall never give up until we see bees gathering acctar from our "Linden Avenue."

By the way is Mr. Bolin entitled to a great deal of viedli for wintering, or I should say, springing this 100 colonies. I know of bee-keepers with little or no experience who have lost none this past spring.

There are so many varying chremistanees may not Mr. Bolin yet find his "Waterloo!" J. H. MALTIN, flartford, N. Y. Juno 6th, 1874.

There friend Rolin, what do you thinly of It is the old established custom in this neighborhood

There, friend Bolin, what do you think of

that? 'Twas no fault of your's that your bees didn't die, it only "just happened so," and may-be you'll "ketch it" next time. We should feel more inclined to console ourselves in this manner however, were it not that others had lost bees in friends B's neighborhood, all around about him, during both the past winters. Let ns see If he can do it again next winter. Friend M. is right too, for we have seen many instances of bees wintering nicely where no earc was taken at all, and circumstances seem ed decidedly unfavorable.

FRIEND NOVICE:—I have just been perusing the Gleanings, and there is something very remarkable in all this; you and I have had exactly the same experience in spring management.

Our bees have dwindled down precisely in the same manner. Some of our most populous hives, when set out, are now nonest. We had two Italian Queens, one got lost, the other, in a very strong stock in early spring, escaped destruction by the "skin of her teeth." I will not venture to put her in a strong colony, so she lays about a dozen eggs in each cell. I first thought something was wrong with her, but find that all she desires is "elbow room." Out of 58 colonies—same number as yours—we have now twenty nine; three are yet Queenless, and one has a young Queen just laying.

are yet Queenless, and one has a young laying.

In regard to our neighbors, they were just like yours. In regard to our neighbors, they were just like yours. Those that eall eggs "nlls" and swarms "young bees" seem to have lost none; and open their eyes wide when I tell them of my loss. I presume they go oif thinking, "well, them don't know much about bees, I'll bet a chaw terbaccer." I gness the reason our bees die, is, that they are civilized and refined and consequently can't stand such treatment from the Weather King. Yours in sympathy,

Berlin, Wis, June 8th 1874.

P.S.—I think in a few days I can get some to work

P. S.—I think in a few days I can get some to work in boxes if the weather keeps favorable.

We too, are satisfied now, that the fault was no fault of our Queens; for all they seem to need, is bees. Even now (June 19th) they persist in going over their ground the second or third time i. e. putting two or more eggs in a cell.

## Reports Encouraging.

right so far, but too early to constant tall is all right so far, but too early to say much about her

purity.

The 8th of June last, I bought three stocks of bees lu box hives, transferred in about ten days and received from them during the season 670 lbs. of nice honey, and doubled my colonles. They are allve and strong at the present time. I think that is not so bad considering the somewhat poor season of 1873.

Port Sanlae, April 27th, 1874. Wm. SPEDDING.

DEAR NOVICE:—My bees are getting me into trouble, they are making too much honey; they are lilting every comb in their hives so there is hardly any room for brood. I have been taking frames out, but they fill the new combs as fast as they build them.

Retreat, Ind. June 8th, 1874.

JOHN BAXTER.

FRIEND NOVICE:—We are now in the hight of honoy harvest, the fields are snowy white with clover and the bees are almost breaking their little necks earrying in honey. I have a good time with my knife you sent me, and my extractor. I have four of my Blacks Italianized, got two more to Italianize to-morrow. I extracted from two colonies of Italians yesterday 3½ gallons of honey. Made three new swarms, pure Italians, I am using n 30 luch hive, frames 16½ x 10 deep; don't want anything better for the working senson, and they are just right to winter two colonies in by using a division board. I think I will reach six hundred lbs. honey this season. I have sold some extracted honey at 30c. per lb. how will that do for fruit blossom honey?

N. W. Kershaw, Hope, Ohlo.

P.S.—Will honey extracted before the bees commence cappling it over, sour if it is kept in a cool dry place?

it is liable to, if extracted when very thin, and it becomes very unpleasant even if kept where it does not sour. Be very careful not to spoil your reputation by sending out raw unripened honey.

I slung out a barrel of honey yesterday, and intended to do the same to-day but got sick from working too hard. Weather was extremely hot and help is scarce.

THEOD. M. MOLIZ, West Fairview, Pa.

Is not your Apiary so arranged that you work at a disadvantage friend M? A barrel, should not be a fatigning day's work.

### QUEEN REARING.

#### No. 2.

DIS vexations to have a fine lot of Queen cells built, capped over and just ready to hatch, and then have the greater part torn down. We are glad to be able to state that there is a way of making all such losses out of the question, especially when you are building up an apiary as we are now. gave this plan partially two years ago, in A. B. J., page 15, Vol. 8. It is as follows: Make a Queenless colony by any method you choose, then supply them with eggs only, or eggs and brood both as you prefer, from your choicest Queen; there should be bees enough, mostly young, to cover ten combs. Just before the Queen cells are ready to hatch, cut them out, and put them back so that you have one in each comb; or what is better, go to your other hives and select combs containing young bees just hatching, or gnawing out of their cells-be sure you see on each comb, bees just biting through—and insert a cell in each of these. Of course you shook or brushed every bee from these combs before inserting the cell; now place them all in the hive where the cells were reared, and leave them long enough to have them well covered with becs, and the cells properly fastened, if convenient. Should you get 15 or 20 cells, a double width or Standard hive will be found quite convenient. course none of the Queens must be allowed to hatch in this mammoth hive of combs of brood, but each comb with cell and adhering bees is to be taken up quietly and carried to a new hire on a new stand. This operation should be performed toward evening, when the bees are all at home. These combs with cell etc., in the new hive, if they contain plenty of bees and brood will generally care for the Queen without trouble, but to make a sure thing of it we would give a second comb of hatching bees to each one; this will make them strong nuclei, able to repel robbers, or to take care of what eggs or unscaled larva their combs may contain. Put the two combs up to one side of the hive with the Queen cell between them, and if you have them, an empty comb or two with them will be all the better. Tuck the quilt around them carefully, for they are "homeless orphans" nutil their Queen hatches, and fasten them in for one or two days. This last is not always necessary but if robbers are about, it prevents the necessity of close watch ing, and will induce many bees to remain that might otherwise go home. Build them up as inentioned last month.

See that every colony is supplied with eggs at least once in three days, whenever any thing may occur to prevent their having a laying Queen. With a colony rearing Queen cells, it will be of great advantage, as it keeps the young bees all constantly employed, and after

their Queen is hatched, and until she begins to lay (a period of from 8 to 12 days with us), it is of the greatest importance not only in permitting the colony to go on briskly, but in inducing the young Queen to make an early flight. You can get eggs how, by putting an empty comb in a strong colony over night, and if you have nicely fitting hives and frames, you can put them in where needed almost as quickly as we can tell it. If you are going to be an Apiarist there should be no excuse for neglecting little matters like this.

# Humbugs and Swindles Pertaining to Bee Culture.

[We respectfully solicit the aid of our friends in conducting this department, and would consider it a favor to have them send us all circulars that have a deceptive appearance. The greatest care will be at all times maintained to prevent injustice being done any one.]

R. T. H. B. WOODY, Manchester, Mo. was complained of, some time ago, and we wrote him, asking if he could give us any explanation of the matter. He replied at length, stating he had faithfully filled all orders with the exception of one, the writer of which had failed to give his address, and that he would be pleased to learn where he should send the money or Queens. This might have explained a part of the matter, and had he not before closing, called on God to witness the purity of all his motives and intentions, we might have thought him upright and honorable. We then wrote our friend Klum, of Sherman, Texas, that Mr. Woody had lost his address; friend K. considered this too big a joke altogether, and forwarded us a mass of letters of apology, excuses, and attempts to lay the blame on other people, that it seems to us it would have been worth full \$12.00, the amount in question, to write. He first blames G. H. Boughton, (see Dec. Swindles of last year) for having cheated him out of a larger amount, as if that excused him at all; and finally snys he will return the money by post office order if friend K, will take the risk of having it sent thus. Afterward wants to know if he won't "take pigs," money is so hard to get; it may be hard to get in Texas too, for that matter. all events our subscriber had been writing nearly two years in vain, in the attempt to get back his \$12.00 or the Queens, and yet Mr. T. 11. B., "didn't know his address."

A large number of persons are now soliciting orders for Queens, Beckeeper's supplies etc. etc., and just as soon as it is known that one of them refuses to refund the money sent him, or to send the goods ordered, we hope our friends will give us their names without bestation. Before making any transaction public, we will give them ample time to clear themselves if they can.

Queens reared on Kelley's Island are again advertised in such glowing terms, as the 'Italy of America etc.," and the prices asked for them are enough to do all they propose honorably, but the gentlemen should be informed that if no Queens are reared at all on the Island, as was the case last year, they may expect to have our Ecc-keepers fully intorned in the matter several letters are now on hand regarding their traffic.

## Heads of Grain, FROM DIFFERENT FIELDS.

ESSRS A. I. ROOT & Co.—In March we had a fine flow of honey, but I being a house. ESSRS A. I. ROOT & Co.—In March we had a fine flow of honey, but I being a beginner had weak stocks and did not reap full benefit, but it was of great service in building up and we had much nice honey. I raised Queens in March and was careful to put no comb in except pure Italian, but to my surprise I found three Btack Queens, or nearly so, and I have not yet seen any workers from them with yellow bands. All other Queens raised then and since, are bright. I live on Vermillion River ont of reach of over flow. Dryest ground is right on bank. How far off would you put an Apinry? How far off will it be safe to keep black drones? will soon have none and no neighbor within half mile. When and how can I move bees 100 yards safely?

Abbeville, Vermillion, La.

We are inclined to think the Onecus men-

We are inclined to think the Queens mentioned came from common brood by some means.

We are too little aequainted with the South to be able to advise intelligently as to locating an Apiary, but would remark generally, that we would choose the lowest ground we could find, that was not too wet to be in danger of drowning the bees; our reasons are that they might be sheltered from high winds; if surrounded by hills, rocks or tall forests, all the better; secondly, we would have the bees descend, when going home laden. On going home before a storm and perhaps wearied, they would sail down into the quieter valley almost by gravity alone, whereas were their home on a "hill top," the hardest part of the battle would be to ascend in the face of the blast, when laden with pollen and possibly honey too, besides the fatigue usually resulting after a day of labor. We should pay but little attention to proximity of water, for this can be easily secured artificially.

Bees are reported to go home, even after having been removed as far as 2 miles; careful observation however is needed to be aware of this; but we think drones should be kept two

miles away, or more if possible.

We know of no way of moving a colony of working bees during the working season, 100 yards, without loss. We have made careful experiments in the matter, have smoked, and drummed, and clustered them with their Queen apart from their combs, yet go home they would a great part of them, in spite of us.

Thoughtless people may claim there is no loss, but if they put a similar hive on the original spot, they can easily determine how many are lost; if no such hive is used, they scatter about in a way that would likely be unnoticed, but careful inspection of the shrubbery, grass, etc., at night or early in the morning, will generally reveal the homeless wanderers. Moving them one foot a day is the safest plan we know, but 'tis a great bother, and after all a considerable damage to their labors.

If any one can direct us in a better way, 'twill be a favor. Of course by confining the bees to the hive, or after a spell of bad weather of a week or more, they can be moved without much loss, but careful observation shows that even then, the older bees are many of them missing, and in some cases the loss is considerable. We once purchased a colony of a neighbor in January; they had no weather enabling them to fly freely until March, but

even then so many bees went back that they froze outright, the first cold night; and examlnation showed a great part of them scattered about on the ground at their old home. That such is not always the case we are well aware, but it should be borne in mind that such results may frequently be expected.

I put 50 coloules in cellar last fall, in Langstroth hives—uneasy all winter—thermometer between 3.° and 50°. Two died with dysentery—more had it—have united until I have 40 left. Bound to have all strong if have to do so some more. Some had brood in ten combs—will average about eight. Cold bad spring. Adams, Wis. May 30th, 1874. J. L. WOLFENDEN.

Have just examined the stock of black bees, transferred from "big hive" and find that the Queen has laid more eggs than any two Italian Queens in the Apiary, since I transferred them. Think Adair is quite right on the dwarfing hive system.

Dowagiac, Mich. May 151h, 1874. JAMES HEDDON.

Mr. H. sent us an account of transferring a colony of blacks, from an extra large box hive, so large in fact that it was never filled with comb, but it contained an unusual number of bees. The letter has "got away" somehow but the above is a further report from it.

I had enough Queen cells to start 4 nuclei, which I formed in about I0 days, well they halched out, but no drones. I looked everywhere for instruction as to what would be the result. Langstroth page 36, says, "retarded impregnation of Queens results in producing drone laying Queens." Of course this would not do, and I could find nothing contrary to this in Bee Journals or Gleanings; in fact they did not even treat on the fact that such was the case. I have often seen the renark that it would not do to raise Queens too early, but I have never seen the reason why. Please do not think I am scolding our Editors, but you know it is best to tell our troubles sometimes. Well, Thursday last I killed two of those Queens, and one flew away. Did I do right?

S. J. M. Elyria, O.

Tell us your troubles by all means, and we'll

Tell us your troubles by all means, and we'll help as far as we know.

Onr Queens usually commence to lay when from ten days to two weeks old, and occasionally not until three weeks of age. A Queen now in our Apiary that has proved herself quite prolific, did not commence to lay until after she was a month old, but as a general thing we do not think it pays to keep them over three weeks. When Queens are reared in the spring before drones have made their appearance, we should most certainly keep them if any sealed drone brood could be found in the hives at the time they were hatched. There would however, be some probability of their proving only drone layers, and we should be careful to see some of their brood sealed over before deciding positively they were fertile.

VALUE OF LITTLE ATTENTIONS TO BEES.

VALUE OF LITTLE ATTENTIONS TO BEES.

I noticed to-day that one or two bees commenced carrying water, but it was so cold they styped a little and they stopped. I warmed the water to see the effect and it was amusing as well as interesting to see how soon the bees tound it out; in about 20 minutes there were from 40 to 50 eagerly at work. No doubt we can save bees much labor by attending to their wants. Think for instance of bees carrying off a handful of debris as tine as sawdust, a particle at a time, when the Aplarian can sweep off the whole in a moment.

13 dimeshage, Pa. March 24st, 1874.

Holmesburg, Pa. March 2tst, 1874.

We carried the above in our pocket several weeks, proposing to try it before it was published. Notwithstanding we met with no decided success in feeding the warm water we fully approve of the general sentiment of the letter.

MESSRS A. I. ROOT & Co.—Enclosed please find 25 ets. for strip of worker bee comb, with eggs suitable for raising good Queens. Send Monday morning, 15th inst., if the weather is not too cool. E. Franks. Inland, O. June 18th, 1874.
P. S.—My bees removed all the eggs but three, from the strip 1 got of you hast year; those they raised into Queens, now mothers of good colonies.

The above comes from an adjoining County. Could we send them to all our subscribers as surely, 'twould be a grand thing indeed, but candidly, we have no hope that it can be done. Therefore, instead of sending to us, send to some one near you, who has a choice, or imported Queen.

#### MORE ABOUT STRAW MATS ETC.

MORE ABOUT STRAW MATS ETC.

FRIEND NOVICE:—I noticed in the last GLEAN1868 some instructions for making straw mats; you
have seen one of ours I believe, friend Math having
sent you one. I will try and see if I can describe our
machine, which simplifies the making very much; it
is simply two rows of ash rods, seven in a row, mortised in a base so the rows are about an inch apart;
the rods must be thick enough to not spring, ours are
2, of an inch square. We commence by putting a
handful of straw in at the top and forcing it down between the strips to the base, and so on till filled to the
required hight, being carrial to reverse the ends at
each handful. With two blumt needles we now sew
between the strips saddler fashion, and when finished,
that the surplus and loose ends of with a skarp kaife,
leaving the ontside rods to galde you, after which the
mat is slid out of the top. With a very little practice
a very neal tidy mat can be made. Any carpenter can
make the frame. If this is not plain enough I will be
glad to give any further information. Those of us in
his neighborhood who used the mats last winter did
toge a swarm.

This neighborhood who used the mats last winter did not lose a swarm.

I see some are inquiring how close they can put their hives. I use the Lungstroth, they are ranged in rows four or five feet apart at the most, and as close in the rows as I can get them. It makes them very unhandy being able to work only from back to front, but we have to economize space when we have to keep on the roof, or in a small vard; however we experience no inconvenience as far as the bees are concerned, and I don't think I lose more than the average number of Queens. I am surprised myself at so few losses in that way.

This is not a first rate year wilh us. I have taken

This is not a first rate year with us. I have taken out over 2000 lbs, so far and hope to get as much more, but that of course depends on the season. Several showers have brightened things up and made it more

promising.
Will close by hoping Novice's bees are making rapid beadway in regaining their old numbers and standing.
Cin. 0, June 17th, 1874.

II. E. CUERY.

I united my bees down to 51 stocks, one of which was found ulterward to be Queenless, so I call it 50 to commence the season with; 25 of the best will average brood in 40 Gallup frames, or about 800 square inches of prood. The twenty five poorest, 7 frames, or 500 square inches. Am surprised to see that you do not seem willing to acknowledge that Bluck Queens commence to breed carlier and inster in Feb. March and April which is certainly the case, but in May and June the Italians out-strip them by nearly one half. I have had Italians that had not even an egg the 20th of April, that made the best of stocks.

Borodino, N. Y. June 10th, 1874. G. M. DOOLITTLE.

Tell me how I can get rld of the little red ants in my hives. Tell me what is the matter with the young bees, when they become uncapped and die li their cells before it is time for them to hatch, and what shall I do when I shall I so?

E. HUNTER.

Pour boiling water on the ants if you can, if you can't conveniently, sprinkle fine sugar in a sponge, and when full of them dip in boiling water. If we can have our hives l'ull of bees as they should be, the ants or any thing else are perfectly welcome to go in if they can stand it.

We fear you have spread your combs too fast and thus forced some of the broad outside the cluster, which has become chilled. We have been guilty of the same thing several

times this spring. Watch closely the result of your work, and go slowly.

One year ago Shaw & Son sent me an Italian Queen from which I have raised quite a number, all of which are exactly like her, they having only one chance out of fifty to meet pure drones, I had forty nine hall blood stocks, and one pure), yet two liths of the young Queen's progeny are regularly marked three banded workers. I think that very good, what do you think of her? of her?

of her?

I have no falth in raising October Queens. Went into winter with plenty drones, yet some of my young Queeos came out barren or drone layers this, and last spring. Good success in wintering, lost but one stock, but any man that will keep bees in such a patent hive as that was, should lose them all. Please accept my symmathe, for your loss. cept my sympathy for your loss. Rollersville, O.

DEAR NOVICE:—Supposing I should commence bee enture this spring with about 50 stocks of bees, and should extract all their boney, year after year, not allowing them to swarm at all, would not their Queens after four or five years become intertile and my stock become depopulated; or would they rearyoung Queens in place of the old ones? Another thing, I would like to know, supposing some of your bees should swarm initially, would you give them a whole New Idea Standard hive at once, or would you only give them a part at first?

LA MICHENER. only give them a part at first?

Low Banks, Canada, June 14th, 1874.

Our bees always rear a new one before the

old Queen fails, and we have now two hives containing both an old and young Queen. The old Queen sometimes keeps on laying eggs for several weeks or even months after the young

one has become fertile.

We would give a new swarm only as much room as they could comfortably fill, dividing off this space by a division board, or with a half of the quilt. The quilt we use on the Standard hive is long enough to cover half the frames and also to drop down and perfectly divide them from the other half. We would hive the bees in the front half near the entrance, and after their combs are well started, locate them in any part of the hive that may be deemed best. We should, as a general thing. keep the bees at the end nearest the entrance, extending them backward as the colony increased in size.

Bees seemed almost as if they had deserted their hives here in April and first of May, by the strong winds blowing them away.

Two hundred and sixty colonies of last fall (Oh! I had intended to say nothing about this), have dwindled down to fifty two Queens and about enough bees to make five good colonies.

Don't you think i will do exploits in the great Basswood forests of this region?

I have twenty four hundred Langstroth and Gallup France combs unoccupied, which I am putting through

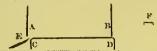
Traine combs unoccupied, which I am putting through the purifying element of purgatory. By the way I am soaking a large number of combs in a tank of water for forty eight hours, then throw the water out with the extractor and hang them in a frame work under the shade of my grove, as worms seem less likely to breed there, I find that 12 or 15 hours soaking will not kill all the moth. R. Wilkin, Oscaloos, fowa

I believe raspheriles ought to be cul ivated more for bees, as they come ni between apple blossoms and white c over. Mrs. S. J. W. AXTELL-Rosevhle, Ill.

We heartily agree with our friend Mrs. A. Those who are desirous of raising honey plants, could start an acre of raspberries with very little danger of their not being able to get their money back, even if it did not pay for the honcy alone. Reports of the quality of raspberry honey all agree in pronouncing it extra the. For directions for cultivation, see Fuller's Small Fruit Culturits which we can mail for I cannot understand what you mean by "doorsiep," "common sense entrance." It is not described in GLEANINGS satisfactorily. You presume we have all gead the A. B. J., a number of us wish we bad. I see you or some writer in GLEANINGS refers to your deviation of it as given there. Name tost.

We presumed the explanation in our circular for 1873 was sufficiently explicit, if not, we

will try again.



Let A, represent the front, and B, the back of a one story Simplicity hive, and C D, the bottom board made just like the cover, as we have so often explained, and let the dotted line represent the ground. By letting the hive project as represented, we have the entrance just below A, but without the slanting board E, for a door-step, the bees would have to climb the perpendicular front of the bottom board, which is very difficult when loaded. with one edge of E, on the ground, and the other, which is heveled sharp, resting against the bottom board, nearly level with its upper surface, they have every facility for access. Now E, would soon slip down out of place, so we fasten it by driving a staple of galvanized wire, F, one leg into the end of E, and the other into CD, with another similar one at the opposite end of E.

We have given this Illustration for the hen-

cfit of those having the Simplicity hives already in use, for the Standard hive having a permanent bottom board, has also a permanent door-step. We are perfectly satisfied now that the Standard has every advantage of the two story hives and as it is much less labor to extract the honey from lt, we would carnestly advise all who can, to adopt it in preference, whenever an opportunity will permit, without

too great an expense.

The following is taken from a letter just ree'd from Mr. Nunn, the friend we mentioned who

brought our imported Queen from Italy.

Do not represent them as bright, for they are dark, and I do not wish any one disappointed. Their workstren not as bright as many we have or home reared queens, but their disposition seems remarkably kind, some of the Queens have annost affect their hive with their way more minimal.

some of the Queeus have annost affect their rive with their own progeny.

The Queeus came from Mitan (Sartori's aplary) and he said were picked up in several different parts within about lifty nilles of there. None of them from the South, where Dadani got most of his. I prefer bees from the North for my own use, even if they are dark, I couldn't see much difference beiveen the bees of Mitan and those on the Lales. North: They detain at Milan their bees to be larger, brighter, and more profitte than those of the higher country North.

The inclosed card is of a celebrity of Milan, who knows you well through the A. B. J. and has translated some of your writings. He said perhaps I would lave an opportunity to hand it to you. F. T. Nens, Oberlin, O. June Buth, 1874.

We would refer such of our friends as care to

We would refer such of our friends as care to invest so much, to Mr. N's advertisement. can assure them that whatever be states can be implicitly relied on, and we have been very agreeably surprised at finding our own Queen, fully equal in every respect to any Queen we ever awned, notwithstanding we have been so frequently told, imported Queens were inferior to home bred ones. Tis true she is dark, but her workers are all we could desire, and so diligent is she in her duties that she is almost invariably found depositing eggs, and

unlike our other Queens she always continues to do so, even when the camb cantaining her is held up for the inspection of visitors. -Ou one accasion when we had omitted to give her the requisite "elbow room," she went over her ground the second time putting two eggs regularly in a cell.

MESSRS NOVICE & Co.:—I desire to consult the "Wind-mill" upon a few points, which I should be thankful to have removed ontside of the mist which surrounds them.

thankful to have removed outside of the mist which surrounds them.

1. In hybrid stocks, we have workers some with three, some will two, some with one yellow band, and others again with long slim black bodles without any yellow band, would there be any difference in the value of Queens rearred from these eggs, which if smilered to produce workers would hatch out the four differently marked bees as above?

In a word, would not a Queen rearred from an egg which would have produced a three banded worker, be nearer pure, and every way better than a Queen reared from an egg that would have produced a single banded, or a full dark colored worker?

2. In the new style of hive, I have the broadside of one sheet of comb exposed to view through the glass in rear. I notice some of the bees rapidly running over the comb, frequently turning around and shaking their bodles most violently and a few bees following them around in their wild movements. The books tell us that these are young bees, (wax producers) and that they thus give notice to others, that they have a crop of wax scales ready for use. This may be so; but I notice that there are others just in from the fields, legs loaded with pollen that go through the same wild Quaker actions. Books further inform us that the wax producers eat largely of honey and remain in a quiescent state while secretion is going on. Let this suffice for the present, will consult the Wind-mill on other points some other time.

Respectfully yours, J. H. Wilson, Sex, Lexington, Texas. May 30th, 1874.

We hardly see how one can answer the first, heeause we cannot tell whether an egg that we use to rear a Queen be one that would produce a Black or an Italian worker; we do know however that Queens reared from a hybrid mother, vary greatly in color, and we have had an impression that yellow Queens gave us workers with the most yellow bands. Imported Queens however, may he quite dark and yet produce beautiful workers; perhaps not so light colored, but we do think selecting Queens that produce very light colored bees has injured the value of the Italiaus as honey produeers, and possibly may have (we can only conjeeture) something to do with our spring losses; these hright yellow workers being shorter lived, and falling before brood is reared to replace them in the spring.

In regard to the second matter, 'tls our opinion that the movements you saw were only their expressions of rejoieing at something that pleased, such as a sudden yield of honey, an accession to their stores by robbing, feeding them, fine weather after a storm, a lot of young bees just hatched etc., etc. We have seen a whole colony set which rejoieing just by glvlng them a few clean white empty combs when they had the rest all full. We have no falth that the wax producers have any thing to do with it although we have seen such statements. When a young hee makes his first foraging trip and returns with a load of pollen, he seems anxlous that all shall notice his great achievement, goes in the hive and out several times, shakes his body, runs against his fellows as if they were "no account" and often seems to Induce his fellow juveniles to go forth in hot haste to see if they cannot do as well. In truth bees are as jolly, playful and happy as kittens

when you once know 'em.

My bees wintered very well, I had them in an out ceffar which is quite dry and cool, and lost but one in litteen; that one being Queeniess. I had in handling them that the Quinby frame as compared with the Novice frame is rather too long, and the full combs too heavy to handle nicely. C. E. GAYLORD. too heavy to handle nicely. Irving, Kansas.

The above shows that wintering in-doors is practicable as far south as Kansas, even with winters as mild as the past. Since our friend wrote the above in regard to the large frames, he has countermanded an order for smaller ones, saylug:

If it would make you no trouble, I should prefer the Quinby hive for the reason that the most of mine are of that sized frame. Another season, I shall conform to whatever size of frame shall seem to become Stand-

ard among Bee-keepers.

Just the idea exactly, and hundreds of other Bee-keepers are feeling the same way.

MR A. I. ROOT—You may condense the following facts for Mr. Sager [see page 59] of Hudson, Ill. and others. Bees do work on Buckeye some seasons. I am inclined to think it is sometimes very rich; have not the positive proof. In cold rainy weather, backward springs, it puts out large buds before grass comes, and cattle will cat them, and it makes them drunk. I have known dozens of them to die from being "Buckeyed," The old woman's remedy is a plnt of lard. If they get down once they are sure to try it again. No danger after warm weather and plenty of grass.

Sherman, Texas. May 26th, 1874. M. S. KLUM.

We have had no rain since the 24th of April. we have had no rain since the 24th of April. Yes-terday evening we had some hopes, but only a light shower hardly worth having, and to-day hotter and dryer than before. The bees cannot gather a living from any source, and we shall have to feed for, we know not how long.

"How doth the little busy bee

Improve the sweltering hours, Loafing around the 'gro-ci-ree Stealing both sugar and flour.'

And although the police does not interfere with their operations, they do not get enough to be of any benefit to their owners.

We truly commenced Bee-Keeping in a bad season, but don't mean to give up while we have any old clothes left (we have no new ones), to trade for sugar. New Oricans, June 1st, 1874.

I think you Editors, I mean Mrs. Tupper, Clarke, Klng, and you, have one fault in your Bee Journals; you ought to give lessons in natural swarming, hiving, etc., because there are ten bee-keepers that use the box hive with a 20 or 30 lb. box on top, where there is one who has frame, and practices artifield swarming. I think we have too many contrary people, they won't give up the old way. I know more than a dozen who would read papers, if they could get some that would talk a little in their favor; I think you could give a doce who there some times that would encourage those box hive plece sometimes that would encourage those box hive

I have seen in June No. about placing bives and about the color, I see you go in for pure white; I don't like white on account of the moth. I think they will enter a white hive before they they will go for a dark one, though perhaps that don't make any difference in your Aplary because you look through your hives pretty often, but that is not the case with all bee-keepers. I would say to those who do not look often after their bees, get dark colored hives. I have my hives under the shed with the curtain arrangement to it, and every hive of a different color. Hives not more than six inches apart and never had any trouble from their getting mixed. I have had bees over two years and have not lost a Queen, either ed et young. I had over a dozen young Queens fertilized and they all came back to the right hive. My hives get the morning sun; the sm shines on the hives ill about 19 o'clock, then they get shade from the root of the shed; at about 4 o'clock the sm shines on the hives again from the west side, and that keeps them working till dark. I have seen in June No. about placing blves ing till dark.

I have got twenty one hives and ten different kinds, which I think are nine too many. I think I will have one kind of hive next year, and that will be your hive. My advice to all beginners in Apiculture is to get one kind of movable frame bives.

D. N. KERN.

kind of movable frame bives. Shinersville, Pa.

SHALL WE HAVE A DEPARTMENT FOR BOX HIVE · BEE-KEEPERS

There may be much truth in what you say friend K. but what can we say for the benefit of the "box hive" people? As an illustration: An acquaintance had a colony in a box hive that gave him 40 lbs. of honey last season, and as they cast no swarm, were full of bees and seemed to winter nicely. In April they began to dwindle down as ours did, and we suggested that they might be Queenless, he meanwhile thinking that the moth was the trouble, although we attempted to tell him that the moth never troubled a hive with plenty of bees; but he could not quite accept that theory, and so we finally decided to transfer them to settle the matter. This was done the last of May, and a nice Queen was found with a fair colony of bees, and considerable sealed brood; but to our astonishment this scaled brood was all caten up by the moth. Eggs were found in great plenty all over the hive, but as soon as larvæ appeared they were devoured by these great disgasting over fed worms, until a good colony was just about discouraged. After trying in vain to plck ont the worms after the colony was transferred, our friend removed their comb entirely, and gave them one comb from an empty hive, placing an empty frame between this and the side of the hive. happy to relate they are now building new comb, which the Queen is filling with eggs and brood, with all the energy of a new swarm. The recent troubles in winter and spring, make it more important than ever belove that our combs be "get-at-able," if we may be allowed the expression. In the same neighborhood a subscriber who had between 30 and 40 colonies in box hives has lost all but two this spring. Now what shall he do with the comb in those hives? Judging from the way the moths are going for our own this snumer, perhaps the best advice we could give would be to burn them all up. A new swarm put into a hive of combs where the moth had made a lodgment. would be just about thrown away, if they did not take themselves away.

It seems to us movable combs are a necessity, and as a proof of this we would invite attention to the fact that not one person in a dozen now keeps bees who did formerly. Those who have formerly had their box hives by the forties and fifties have now only three or four, or none at all, and every winter of late, sweeps them off at such a rate that 'tis now an easy matter to find localities for rearing Italians, with no common bees within two or three miles. Like many other industrial pursuits at the present time, success can be attained, only, by an incessant battle against disease, weather, and the depredations of the various enemies among the insect tribe. In this war for victory we are almost powerless with box hives, so much so that we cannot think it worth while to devote very much time to the matter.

When our friend gets rid of his nine different kinds of hives, he of course will have them all alike, that is if every frame goes nicely in any hive, and we think he will find dark colors quite objectionable in very hot weather. If he has as yet had no trouble with hives six inches apart, he assuredly will have when he gets to extracting, as every good bee-keeper must

sooner or later.



#### DEVOTED EXCLUSI VELY TO BEES AND HONEY

Vol. II.

AUGUST 1, 1874.

No. VIII

#### HOW TO CONDUCT AN APIARY.

No. 8.

JOULD we know just what the yield of honey would be during this month, with each of our readers, we might advise much more to the point, but whatever the circumstances may be, please do not let your Apiary run down, and get grown up with weeds. We have had much to say on this matter 'tis true, but it seems so natural to find every thing allowed to run down after the honey yield has ceased, that we fear very much more will need be said before Apiaries are kept like a "tidy workshop" especially in the fall of the year.

There are very many points still so unsettled, that we cannot as yet decide on what is best; they are now under the consideration of our best thinkers and "doers" too for that matter. For instance: How large had we best make our hives? We certainly are not prepared to decide at present. A visit to some very successful neighboring Apiarians gives no positive grounds for a decision on the subject. Two of their owners, are quite confident that a quart of Italian bees will gather about the same quantity of honey whether they are a nucleus by themselves, or whether they form a part of a two story hive, or whether they belong to a four foot New Idea hive; and in the former case the Apiarist can secure nearly as much of an income from them, from the sale of Queens, as from the honey they gather.

Our friend Dean, of River Styx, as we have before mentioned has before this season only used a single story hive, containing when full, 12 Gallup frames. He always uses a division board, and moves it up so as to have the bees fill their space at all times, in fact quite a swarm issued while we were there, and we were informed they came all from a one comb nucleus. This seemed incredible, but after he hal taken away their Queen to induce them to go back, we looked inside and found the whole space on both sides of the comb, full of bees. No wonder he is successful, these bees filled their one comb with honey as soon as the full stocks filled their twelve combs, and so on through his 40 or 50 colonies. The certainty and ease with which he built up colonies and ralsed Queens, made his bees build all worker comb of beautiful evenuess and regularity, etc. etc., was enough to make any one think the pursuit the most fascinating in the world. Although he has three of the four foot hives under way, he did not seem disposed to agree on their universal adoption, and he could not think of abandowing his division boards any

sooner than abandoning hives, to use his own Mr. Blakeslee uses the Langstroth expression. hive and he thinks his bees that are rearing Queeus, give him nearly if not quite as much honey as if they were in a large hive. Our own bees are at present in single story Sim-plicity L. frame hives, and the lightness and ease with which we handle them (when there is no upper story on) tempts us very much to be satisfied with our Langstroth frames, and never to think of any other. As we had intended to increase without any thought of surplus this season, we have been very agreeably surprised to find that a one story hive crammed full of bees will give a very large amount of honey, if it be extracted promptly when the hive is full. It is true that our Standard hive can be allowed to go 8 days, when our Simplicities would need emptying in 4, but the latter only take about half the time and the L. frames standing square before you in their shallow hives, are much the easiest to manipulate. Please remember that we are only considering both sides of the matter without making a positive decision either way, but we would advise those who like ourselves have a thousand or two of nice L. combs, to be in no haste about transferring them into something else. When bee-keepers decide whether they wish a hive to contain 10, 20, 30 or 40 combs, we can tell better what shape we wish our combs to have. Again: What about wintering? We really cannot gather that the very long hives have practically shown themselves much, if any superior to the ten frame hives, when the latter contained plenty of bees; the former having dwindled down in some localities, just about the same as the others.

Now it will be very well to begin this month,

to consider the matter of wintering, and those who decide on wintering on natural stores should cease using the extractor in time to allow them to fill up nicely. As no report has ever been given showing that sugar-syrup was inferior to natural stores we shall still advise taking away the good honey and feeding the cheaper food. We cannot gather that the syrup stores have any influence either way on the recent troubles in getting them through the months of March and April.

In regard to eider mills; as soon as the bees commence visiting them or the groceries, we would advise keeping them elsewhere employed on dry sugar, and our experiments last fall, though made late, and not conclusive, seem to indicate that the remedy may be effectual. We would keep them away from the cider mills on account of the great number that are there drowned and killed, if for no other reason. Those who are alxious to increase the number of their-colonies in the fall, or to rear Queens, should keep them busy on the dry sugar, If possible just as soon as the yield of honey fails, for they are quite apt to make bad work when first disappointed in getting their customary daily stores, unless carefully watched. 'Tis true we must expect to feed our neighbors' bees as well, but is not this preferable to having our bees amony other neighbors?

We do not think any method of feeding in the hive can answer the same purpose, for whatever is in the hive is theirs already, and 'tis "bee like" to feel that "the more they have,

the more they want."

"Now see here Mr. N., you have written as though 'twere possible to make a one story L. hive hold a whole colony the season through. What is to done with the surplus bees and broot!"

"Why make new colonies when the hive gets too full, of course."

"But suppose the Apiarist has as many as he wishes a'ready?"

"Sell 'em."

"So you would have the production of new colonies always go hand in hand with surplus honey?"

"Or rather we would simply make the suggestion."

gestion.

"Twere much better as a suggestion than given as a part of 'How to Conduct an Apiary.'"

In one ease we are dependant on a single Queen for the peopling of perhaps 30 combs, in the other only 10; now if a 30 comb hive gives 300 lbs, surplus, will not the other give safely 100? in the former case the whole is dependant on the caprice of a single Queen, and Queens are capricious in regard to the number of eggs they lay, at least we flud them so.

Our Queens sometimes lay 2000 eggs per day for a short time; but so far as keeping them at work at this rate is concerned, we have not

been able to come any where near it.

In conclusion we would say that we consider the Standard hive by all means preferable, when one is commencing anew and can choose that as well as any other; also, for a hive that can be used to allow all of the Queen's progeny to labor without increasing the number of stocks, we should give it the preference unhesitatingly, over a two story hive.

Friend Muth of Cincinnati, who has had much experience, advises that honey be run into large cans, milk cans for instance, and allowed to stand several days to settle, and allow of what scum may rise to the surface being skimmed off before barreling it. This will make some additional trouble, but may be quite an important item; we have not as yet been able to give the matter a careful test, but will say this much, that our honey has always had a bad habit of expanding when it candies, so much so that it generally oozes ont around the month of the jars, in a very untidy and inconvenient way. If, as friend M. thinks, this can be remedied by allowing it to stand, and removing the scum etc., we should certainly do it. Will our friends please report.

Again, we last season recommended using half rosin with the wax for waxing barrels, and we thought we had given it a thorough test, for the honey had no rosin taste even after being several months in the barrel; but this spring having oceasion to use a barrel that had some honey candied on its sides, we found on pouring it out after it had been standing in the sun until melted, that it had a considerable taste of resin. In view of this we think beeswax alone had better be used. If it is made very hot and not less than ½ gallon used, 'twill take but little to make all tight.

## OUR OWN APIARY.

AD we not grown sober and steady of late, we presume we should now be sailing our hat ou account of the sudden, very welcome intelligence given us by the bees, that the basswood trees were loaded with honey.

We had abandoned all hope of doing more this season than to build up our shattered colonies, but to-day, July 6th, we have taken more than half a barrel of nice thick honey, and during the whole time we were extracting, not a robber interfered with our work. It really seems like old times. Not even smoke was required until we came to our natural swarms of common bees. And by the way, that reminds us that we haven't told about this same good fortune of ours. It was June 25th, and we were all intent on our July No. you see, when a neighbor persisted in wanting to see Novice. His first remark was, "Well Mr. N., if you were sick you would send for the Doctor would you not?'

Novice replied that he probably should, mentally feeling that he hadn't time to be sick 'no how' just then; but his face became genial in an instant when the Doctor—for he it was-suggested that 'no one was sick, but that a huge swarm of bees were clustered on a bush in his garden and he thought the only proper

thing to be done was to send for-"

"Are they hanging in the sun?" interrupted Novice, for the day was an intensely hot one and it was near noon. When informed they were, he waited only to get two perforated tin cases ont of the wax extractors and started for the "big swarm of bees." Alas for human hopes; when he arrived at the bush, the beeshad decamped and nothing remained but to go home again, mentally avowing that he would next time collect his scattered wits five minutes quicker when told a swarm of bees were to be had for the hiving.

Worst of all, he had planned just which empty hive, in the shade of an especial grape vine, they were to occupy, and he couldn't quite give it up; so when informed after dinner that some workmen had hived a swarm in a box, and wanted to sell them to him, he made such rapid strides for them that, in less than half an hour he had them all fixed in their shady home, and rejoicing over their treasures of partly filled combs, among which had been put one of unsealed brood, to be sure they did not desert. The men who hived them were also rejoicing over \$2.50 which they received just for patting them in an old box. Before dismissing them, we may add that they have already yielded in ten days enough honey to pay first cost, and so we may consider it a pretty fair investment. We at first considered this to be the truant swarm of the forenoon, but on

learning they had been hived about nine o'clock, contented ourselves in thinking that if we had not the, we had got a swarm, and about sun set Novice had a sudden revival of the swarming fever caused by a report that a "big swarm of bees" were hanging on a plum tree, and had been all the P. M., during a heavy thunderstorm, and that no one would hive them, there were so many, etc. No wonder he got his metal baskets again and traveled for the point mentioned. Sure enough, there they were, looking wet and rather sorry; a few twigs of the plum tree foliage were tied in the bottom of one of the baskets and he essayed to make them cluster inside, when inverted, but they were so chilled that when a bruch of them as large as a large apple fell into the bushes and grass underneath, he decided to hold the other basket under them. As they were clustered on the body and limbs of the tree, it was rather slow work, but he finally got them all "bagged" except the bunch that fell down. They were taken home and hastily emptied before the hives, the swarm being so large 'twas thought best to divide it. A card containing eggs only, from the imported Queen was provided for the Queenless part, and they were coaxed into the hives; but both divisious would persist in running out again "pell-mell" until a frame containing unscaled larva was given them, besides the comb containing the eggs. Shortly after daylight next morning Novice once more repaired to the plum tree and found about a pint of bees clustered on its trank and the Queen among them "to be sure." She was given to the largest half, and they have now given us one nice new comb, and a hive full of honey, and the Queenless part, after having the comb of larvæ taken away from them next day-'twas only loaned-have built nine Queen cells, and given us half a hive full of honey; and we have to-day given them six combs of hatching brood into which we shall insert the cells, one in each, that none may be torn down. By the way the eight Queens we reared in our first lot are now all laying. Isn't that pretty well to get a laying Queen from every cell started?

By the way, another swarm of bees was hived in a box July 3rd, and we were consulted as to what was best to be done with them. As formerly, "a swarm in July were not worth a fly, we only offered \$1.50 for them, but the women folks where they alighted considered them a lucky omen, and thought the amount but very poor compensation for "selling ones luck." We explained to them that they were almost useless property to any one who had no empty combs to give them, as we had, but finally paid \$1.75 and carried them half a mile in a large box without any bottom. These have in three days, given as half a hive full of honey, which is a strong argument in favor of keeping a supply of empty combs and an extractor on hand; for how much could these bees have done had they been compelled to build the combs?

Once more we have an Apiary with a population sufficient to make the air resound with gladness, and equal to the task of getting up a respectable roar at the close of the day, when the yield of honey has been encouraging. Although we try not to borrow trouble for the future, dim visions of "cider mills" and bees

all dead and dying will intrude themselves at

On yesterday morning we followed the line the greater part of them were taking to the basswoods, and we found the trees bending beneath their load of blossoms. These when held so the sun shone down into them showed a tiny glistening drop of pure honey in the little cup formed by the petals of the flowers; this drop is sufficient to be tasted readily and is so convenient of access that 'tis no wonder at all that bees get crazy for it, and that they gather astonishing quantities, for a load could be obtained from a very few blossoms and in a comparatively short time. After seeing how the honey is secreted, the great yields from the Linden forests of the West scem easier to understand, but the yield is very uncertain here, or at least has been for the past few years.

"Yes, just 45 colonies, and over 850 lbs. of hon-

ey," Novice was saying.
"But," says his interlocutor, "You have not which you said comprised your whole Apiary June 8th,? It is now July 22nd, and from 16 to 45 in a little more than six weeks sounds like a pretty large result even had the 16 been

strong. Have you purchased none at all?"
"Well, let us see: P. G. did purchase a colony of Blacks about June 1st, to test one of her projects. As she couldn't wait a minute to have it Italianized, she commenced operations at once by killing the Black Queen without considering the length of time 'twould take to replace her; so the bees and brood were eventually incorporated with the common stock. Then we purchased a natural swarm (Blacks) June 25th, for \$2.50, a second one July 3rd, for \$1.75, and a third-second swarm with unfertile Queen-July 7th, for \$1.25. This is all except a fourth natural swarm found without an owner as we have mentioned, June 25th.

"But what became of your resolution to make your Apiary self sustaining and not to purchase?"

"Well, in the first place P. G's orphaned colony were losing so much time for want of a Queen of which we had a superfluity, and the natural swarm waiting to be cared for in a cold nufeeling world-"

"Hold on Mr. N.; isn't that pretty eaol philanthropy? How many lbs, of honey did this 'improtected swarm,' put in the empty combs you gave it?" Full 75 lbs, worth 20c, per lb, did they not?" Novice assented.

"And you divided the swarm at that, and set the other half rearing Queen cells if we are not mistaken? Yes, well P. G. says you made them construct two lots in succession, amounting to 15 or 20 in all. Now these cells from imported stock were worth just then something like \$10.00 and as they gave you honey too all the time, it seems that your 'cold unfeeling world let about \$30,00 slide through their flugers which you in your phelanthropy didn't. But go on."

Strange to say, Novice for once in the world declines being voluble even on bees, and so we shall have to end our chapter until next month.

P. S.—Our first eight Queen cells, gave us 8 Queens and they are all laying. Our second, third, and fourth lots might have done as well, had we followed our own teachings.

# OUR PRIMARY DEPARTMENT, Or First Principles in Bee-Keeping.

[Designed especially for the veriest novices, and those who know nothing of bees whatever. Conducted by a fellow Novice of several years experience replete with blunders, as well as with occasional supersest.]

chase? We would advise that you take whatever comes handlest, If there are only lots of bees in the hive. You will have to transfer it any way, and so it will not make any great difference what contains them. Bees in a box hive are valued at from 2½ to \$10.00 according to season, locality and strength of colony. If you could beg, borrow or steal a few empty combs, the simplest way in the world would be to bny a natural swarm, if one could be obtained within a day or two after having come ont. Of course the word "steal" is not really intended, for we expect all bee-keepers if they wish really to enjoy their possessions to render a full fair equivalent for every thing, that they may feel 'tis all honestly earned by the sweat of their brow.

Whatever the hive may be, locate it on the north side of the trellis as described last month, make it level unless 'tis intended to slant a little from the entrance to shed rain, and have the entrance on the east side. Bank it around with saw-dast far enough so that you can go down on your knees safely at any side of it. It's good for one to go down on their knees sometimes, and if you would be an Apiatist the sooner you bow as a submissive pupil to kind

old dame nature, the better.

Now we are not going to trouble ourselves to tell you which are the workers, and which are the drones etc., for 'tis your business to learn that yourself. The colony is to be transferred into a Standard hive bye and bye, but before you undertake such an operation you are to get thoroughly acquainted with your little friends. You should be so familiar with them in fact that you can lie down in front of the entrance and examine the movements of their antennae with a magnifier as they greet new comers who return with a load of pollen or honey. You should also be able to distinguish at a glauce a bec filled with honey from one that is not, that you may be able to detect robbing at its commencement. Nothing but close careful observation will enable you to do this. They will very soon get so accustomed to your presence that they will not be disturbed at all, and will alight on your face when heavily laden as confidingly as if it were their own threshold. You should be able to distinguish at once by their hum or note whether they are in a quarrelsome mood or only busy in the faithful discharge of their duties. We remember well our troubles during our first senson with bees; they had been robbing some, and in the afternoon we found a quantity of hees hovering about the entrance, crowding in and out, and making a sad hubbub, as we thought; we so closed the entrance, and then left sure 'twas robbing for they piled over it and made frantic efforts to get in. Soon another colony was "attacked" and we closed them up and, oh dear, such a worry as we had. As they didn't go home at dusk we let them in

and it finally dawned on our understanding that 'twas only the young bees at play, as they almost always do from 12 till 3 or 4 o'clock P. M. We had not then learned the peculiar "robbing note" nor did we know that swarming was always indicated by a sound that a bee never emits at any other occurrence in life, and worst of all we could not distinguish a loaded bee from one that was not. If you learn all these things before transferring 'twill be all the better. A folding, or camp chair as they are sometimes called is very convenient and then 'tis pleasant to take a book or paper and sit by your live and grape vine. The hum of their industry, to us, is the thest accompaniment for enjoyable reading.

Now both this hive, and the vine are expected to increase and multiply in time, and this vine is to have its one shoot tied to the central wire D, as fast as it grows, pinching off all side shoots after they have made one leaf. When it gets to the top of the trellis, pinch it off also, and it will soon throw out side shoots. Pinch all off again except one on each side near the bottom bar B. Train these by tying, strait out horizontally until they reach the posts, then train them up the posts and pinch them off like the middle one. Now get two more shoots to train up the wires C, and E, and we are done. The future treatment of the vines consists only in cutting the upright shoots all back to the horizontal arms tied to the lower bar B, every winter, and training two new shoots up each wire and post every summer, and pinching them off whenever they get to the top.

Next month we'll tell how to "swarm grape vines" artificially as well as more about the

bees.

## A SCENE IN THE APIARY.

IME, July 10th, about dusk. Blue Eyes in charge of Mrs. N. is perched up on one side of the extractor bench with one fat arm stretched over to the crank, and while she is enjoying herself hugely in making it spin, Mrs. N. is telling Novice that she will take one of the best \$10.00 extractors and must have it immediately as she wishes it to keep the baby quiet. Novice however is dolefully contemplating his aukles just now, and seems evidently troubled about some matter more weighty than the simple fact that they are only "useful" and not "ornamental." The real trouble is this; the hives have just been discovered to be a little too full for the best economy, and P. G. in her ambition to have as many hives as possible emplied before dark, persuaded him he could do "just one more." This last one had made such progress in gathering honey, and the Queen had lilled such nice combs with brood (they had been unable to repel robbers a very few weeks ago) that he took so much time to contemplate the snowy wreathed combs, coutaining the basswood honey—he called it "dew of heaven" a few days before when an attempt was made to take out some before it was sufficiently ripened, but P. G. suggested that our honey customers might have a decided preference for real honey, after they had paid their money, in place of the aforesaid "dew" and so extracting was adjourned until the evening in

question-well, as we said before, he forgot twas nearly dark and almost neglected to respond to Blue Eyes' erows of delight which are invariably addressed to her Papa when he is ut too busy-now before going further 'twill really be necessary to state that Noviec wears linen trousers when extracting, for Mrs. N. says if he must go down on his knees so much, something must be worn that will wash; and as the young bees have quite a trick of crawling in inconvenient directions, he always tucks these linen pants into his stockings when at

After the last eomb was taken out he eoncluded the Qninby smoker (none had been used hefore) had better be lighted before replacing them, and by the time this was done it was just about dark enough for the bees to get into that kind of a careless way of stinging promiscuously, when disturbed, any thing that they can see regardless of smoke or almost any Now these white stockings-for a thing else. wonder they were tolerably white—seemed to the bees just the thing to "go for," and they did so and discovered a "break in the armor" between his low shoes and the linen pants, protected by only one thickness of thin cotton, and that is why he is looking dolefully at his un-

kles.

Meanwhlle P. G. has put the eappings in the wax extractor, tied the cloth cover over the honey extractor, wiped up the floor if any honey had been dropped—by the way Novice says that she too got cuthusiastic and kept on extracting long after the barrel was full, until in faet a half gallon or more had rnn over ou the floor; but this was probably a little exaggerated on account of his "ankles"—and the Apiary is now quiet. The bees are uniting in a contented him whose volume once more indicates life in the recently desolated Apiary; Blue Eyes is sleeping the peaceful sleep of childhood, and we, before dropping our pen devontly hope that all our readers have as abundant cause for thankfulness during the hight of the basswood season as have we.

#### ANSWER TO PROBLEM ETC.

AS Problem No. 13 been solved yet? Our bees are bringing in pollen very last now. In fact the supply seems to be far in excess of the demand; and I could take from each of my hives one frame completely filled with it. But can it be kept in good state until next spring, and how?

S. W. STEVENS, Ridgedeld, Conn.

Pollen taken ont late in the fall will keep safely and will be used at once by bees in the spring in this locality, but we should fear it would get sour or mould if removed in warm weather. Your blues may seem to have an excess to-day yet if examined a week later, when brood is being reared largely, we sometimes flud it nearly all gone. We have recently seen a frame emptled of pollen in so short a time that it seemed strange where it could have gone.

ANSWER TO PROBLEM NO. 23.

ANSWER TO PROBLEM NO. 23.

Queens raised from eggs are longer lived but no more profile, for the time they live, than an 8 or 10 day Queen. A 10 day Queen will rarely live one year, while an 8 day Queen is good for only about 4 months. By the way. Mr. Editor why is it that Queens sent out by breeders are so invariably short lived? I have had Queens from nearly every breeder in the United States, and with but one exception none of them ever lived to see t6 months. But to return, in 1870 I raised a set of cells from a strong colony and just before the

first was hatched, I took them all away and gave them a frame of brood in all stages. They remred about 20 cells, about one third of which hatched in 8 days, the majority on the 9th, and 2 or three on the 10th. They were all small, but little larger than a worker. I succeeded in getting 5 out of the lot Fertilized, one on the 16th day atter they were hatched, two the 17th, and two the 19th. They were as prolific as any 12neans 1 had as far as 1 could see, but one died of old age in 3 months, 2 fived nearly 5 months, and the other 2 died during the whiter. Queeus usually are laying from 7 to 9 days after they are instehed, with us, and it a Queen is not hoting within 12 days we always kill her, deeming her wortherss. We have repeated the experiment alunded to above once or twice since with the same results. Bees getting but little honey as yet. It rains nearly all the while-ground soaked—Basswood will not be open in a week yet.

G. M. Declittle, Berodino, N. Y. July 9th, 1874.

DEAR NOVICE:—In answer to your problem No. 23 on the cover of Gleanings, for July, I see no dillerence between queens raised from the eggs, or queens raised from grubs already three days old. Besides I have very often remarked that out of a lot of queen cells, those that hatched last were generally poorest. Every time I have had queens hatched later than sixteen days, they were of little value, while those hatched in ten days proved to be the best. It seems that as soon as the colony linds it is queenless, it gives a superabundance of care to the grubs closen to be raised as queens. After a few days the cure given the second chosen grubs is lessened, and the queens produced are poorer. I can see no tenson why a grub three days old would be of less value than an egg, to be transformed into a queen, since if we give the bees grubs of that age and eggs, they will prefer the grubs. I think bees know their business better than we do. Besides it is to-day a well ascertained fact, that the jelly given the grubs for the first three days after hatching, is the same as that given the young queen; and that the grubs ean eat of it as much as they want since they lay in a thick layer of that jelly.

Chas. Dabant, Hamilton, list.

We are much inclined to think eggs preferable, and we feel satisfied that the young larvæ should literally swim in the royal jelly just as soon as hatched. That this is not usually the case with the small worker larvæ, observation will readily show. If we wish to grow a strong specimen of any plant or auima!, plenty of food is the great desideratum. Even cramming is sometimes necessary to get the desired result, as in fattening fowls for instance, and if we wish Queens to five four years and to lay eggs up to the figure fixed by Young America of modern times, she should have all the jelly she can possibly use and a spoonful (or less) should be found in the cell after she is hatched. How is it brother bee-keepers, after your Queens are hatched out do you find any food remaining in the cell? Look earefully and report. Again our recent troubles have really been that our worker bees have been too short lived. Now is It not possible that where so many bees are kept in one locality they fail to find a sufficiency of some one of the essentials needed to give them perfection of vigor and constitution. Novice here suggests that the whole trouble may be the want of salt; some writers on poultry now claim that salting the hens will surely prevent the Chicken regularly Cholera.

FRIEND NOVICE: Double a woolen cloth and put FRIEND NOVICE: Double a woolen cloth and put under your water bottle; and to one qt. add ½ table-spoonful of common salt then your bees will have salt water. My bees took about a gallon a day, when breeding tast last summer. The cloth will soak with water and gives bees a nice chance to suck it out. Put sheared side of cloth up. When getting salt water they got fresh water at the same time so perhaps you had better "rig" two bottles, for each.

J. D. KRUSCHER, Berlin, Wis. We have got a salt water jar "rigged" but they don't take to it as yet. We have at times noticed bees when they seemed enger for salt.

noticed bees when they, seemed eager for salt.

## Gleanings in Bee Culture,

Published Monthly,

A. I. ROOT & CO., EDITORS AND PROPRIETORS

MEDINA, OHIO.

Terms: 75c. Per Annum. For Club Rates see Last Page.

### MEDINA, AUG. 1, 1874.

A. B. J. and B. K. M., were on our table promptly, and the World a few days afterward. All good. N. B. J., at present writing has not put in an appearance.

Warrauted Queens for 1.50, we think full as cheap as the dollar Queens without warrant, and our old friend Alley has agreed to the former rate for the season. See Advertisement.

"BLASTED Hopes" and doleful visages, have for the past few weeks been glving way to "Reports Encouraging" and bright anticipations of long "Rolls of Honor;" but we're too small to obronicle all of the latter.

A BEAUTIFUL EXPERIMENT—Give a natural swarm a hive full of empty combs, and extract the honey as often as the combs are filled. The nice part of it is, that they frequently give you \$10.00 worth of honey in a week after hiving.

WE with pleasure notice that C. O. Perrine has commenced settling up his old debts in a manner quite satisfactory. As he has perhaps bought more honey than any other deafer in America, we shall be quite happy to hear he has regained confidence by an honorable settlement of all old accounts.

CANNOT some of our subscribers advertise bees for sale? We have many inquiries, but cannot direct them where to send. Adam Grimm's notice would do very well for those in that vicinity, but 'tis expensive and risky sending so far. Who will furnish Italian colonies at a moderate price in the Southern and Middle states?

Our Agricultural exchanges atthough full of valuable matter, contain liftle on bees beside extracts from the Bee Journals. The Rural New Yorker contains an excellent plea, from a dealer in Groceries and Provisions, for pure honey, and prices within the reach of fine masses. Had they given his address in full we night have shown him that laborers were already in the field.

Kind Uncle Samuel now carries merchandise of all kinds, as well as seeds and plants, for eight cents per lb., and 4 lbs. may be sent in one package, instead of 12 oz. as formerly. In fact we could send a Simplicity hive by mall now, if any one should desire; the postage would be just about as much as the hive, viz, 90c each, and they would have to be sent in about six pleces. But half the amount mentioned on our price list for postage on the articles we advertised, need be sent for postage hereafter, with the exception of seeds, which remain as heretofore.

Our enterprising friend Muth, of Cincinnath, sends us a sample of his 50c housy knives which we really think will prove "as good as any" for uncapping at least. It certainly cannot boast of much pretentions to beauty in its "get up," but it has a line steel blade

very thin, and sharp, ready for use, and it is fixed very firmly in its plain wooden handle. For the business of uncapping only, we do not see how it can be improved; but for other work, such as transferring etc., the long stender blade and peculiar handle of those we furnish, will be, we think in some respects, preferable. We wish Mr. M. a large trade in them, as we do every one, who aims to cheapen Aplarlan supplies.

The Quinby Smoker, has become almost indispensable to us. 'The true it bothered by going out at first but since we gathered a supply of "punk" we have gone our way rejoicing. This can be gathered in any forest containing maple stumps or logs; 'tis a species of lungus that grows out of them somewhat like mush-rooms. Carry along a heavy hammer, for they are hard to break off; when they are first gathered they are to be chopped in pieces small enough to go into the smoker readily, and dried thoroughly, in an oven or otherwise. This substance burns longer than any thing else with which we are acquainted and never goes out where it can have even a very small supply of air. Who will put some in the market, nicely prepared?

AFTER a Queen hatches, she usually leaves the cap hinged to the cell like a door, and it often springs shot after she has passed out. Now the bees sometimes wax this cover down again, and the Apiarist looks at his cell in disappointment, for several days perhaps, walting for his Queen to hatch, while she is crawling about the hive as unconcerned as can be. We mention this because several blunders have been caused thereby, one of which we were a party to, in fact we assisted in persecuting a princess, as an interloper, all because her cell seemed to be unhatched. After she had flown away from such rude treatment and was hopelessly lost, 'twas found that the innocent looking cell was only a hollow fraud with the aforesaid door shut.

ANY colonies not having a "hive full" of bees should be fed at once, if honey has ceased coming in, to keep brood rearing under full headway that we may have plenty of bees for wintering. Never lose sight of the fact that whenever brood-rearing is stopped, if it be for ten days only, it will produce its effect, it may be months hence, perhaps while we are getting them through a snow-storm in April, but the gap will come where bees too old, and brood too young, blocks progress for the time being. Give them all they can use without filling the combs so as to crowd the Queen; this can only be determined by examination, say, once in three days. Uso sugar syrup, and should you thus give them their winter supply it will be in the best shape possible, and just as they naturally have it. - +0+ -

SENDING QUEENS BY MAIL, Mrs. Tupper thinks to be wrong, as there have been rulings by the assistant P. M. G. to that effect. If such of our readers as are Interested in the matter, will read Vick's Floral Guide No. 3, they can see that this is not the only case in which the acsurdity of some of these "rulings" has caused them to be ignored by every one, nuless it be occasionally some P. M. who lungines it a duty to show his authority by hindering the progress of a harmless and innocent branch of agricultural Industry. We can send queens safely to Texas now, for one cent providing no writing is put in the package: if sent by express the charge would be a dellar or two. Are we to understand a dozen bees put up in a stout metal cage are to be an exception to all other kinds of produce and merchandle? Perhaps the new law that took effect July Istanculioned clawhere may include queens. We hope to-

## COMB BUILDING; HOW TO GET ALL WORKER COMBS ETC., ETC.

OVICE:-Can you tell me why my bees build but very little comb, and why that little is % drone very fittle como, and why that fittle is 3, drone como. I have put them into domble Shuplicity hives and given them what empty combs I had and they have increased in numbers beyond my expectations, but when I put in empty frames they leave them several days before commencing work on them, and then start very reluctantly and nearly every time begin with drone comb. As I am anxious to get worker comb, I have tried cutting out the throne comb but to no purpose, they immediately commence drone comb again.

We have never failed in getting bees to build comb rapidly, when we could secure warmth, plenty of food, and plenty of bees. It does not seem to be sufficient, that they have an abundance of stores in the hive, but they must be adding to their stores daily; in fact we have thought they only built comb when there seemed a probability that it would be needed to hold their provisions.

One other fact must be remembered, and that is, bees almost cease comb building when they get the swarming fever; in the case mentioned above, we infer that our friend neglected to use his extractor, until the bees had decided to swarm and then they would not give it up. When honey is coming in briskly, we would empty every comb, and commence soon enough

too, to discourage all attempts at swarming.

About the worker comb: We too have had nearly all the combs built this season mostly drone comb, and after hearing that friend Dean of River Styx, knew how to induce his bees to build such comb as he desired, we paid him a visit with this particular idea uppermost. Sure enough his bees were building the whitest straitest, and most beautiful comb we ever saw in all our experience. We were told to examine any of his hives we chose-there were 40 or 50- and we found entire worker comb in almost all. One colony it seems had disobeyed orders and had made a beautiful oval disc of drone comb; when he took it up quickly we were surprised to see him turn it over horizontally (in a way that we might expect a novice to handle new combs, but not an old bee-keeper), and coolly break it off for them to commence over again.

"But friend D. they will only build more

just like it."

"No they will not; I will take away some more of their combs.

"But they have only three besides the empty frame now.

"Then they shall have only two."

"And if that don't do."

"Then they shall have but one; but 'tis seldom necessary to cut them down so close as that."

"But friend D., you would lose much honey if you deprived your heavy colonies of all but

one or two combs?"

"That is just the point; I make my muclei and weak colonies do all the comb building, and they will make quite a number each, during the season, besides storing a goodly crop

of honey."

Our readers should remember that division boards were used-Gallup hive-and cach of the comb building nuclei was crammed full of bees, but a happier and more peaceful Apiary 'twas never before our lot to see.

Two or three swarms also persist lu making Queen cells and wauting to swarm, and I keep cutting them out. In two instances where I overlooked Queen cells they sealed them ap and east very heavy swarms; but I returned them again, cutting out the Queen cells, hoping to force them to make romb. The combe are now literally crowded with bees. The honey product has been very light but all the swarms have had some capped honey all the time. Would it have been better to let them swarm? Have not extracted any honey yet.

The trouble is again that you didn't use your extractor; take their honey all away, and they can't swarm. Yes, 'twould have been better to have let them swarm after they had got the fever so badly; you could have given them their old hives combs and all, in a new location, and they would have proved immensely industrious after they had gone through with the "programme."

Why is it that all at once most of my bees are so cross? Thus far during the season I have been able to handle them whenever I chose without any protection for face or hands. But for the last three days a little snoke seems to irritate them instead of quieting them. I have been just as careful in handling as ever, but all to no purpose. They come at me in a perfect swarm and will not leave till I go into a dark room.

Perhaps half our readers are in the same predicament; after the Basswood failed suddenly, they suddenly became as cross as if they had been stopped in some wholesale robbing raid, as in fact they have, and all we have to do is to keep cool and not tempt them by unguarded bits of comb and drops of honey, until they get over it. Drive them back with a good lot of smoke and make them fill themselves with honey if you can. Stings will be more liable from bees from other hives that are trying to rob them. We have to-day-25th,-only been able to see to our Queens etc., carly in the morning, and were then obliged to desist after working about an hour on account of other bees rushing into a hive as soon as opened. We shall resume our work again about sunset or a little before.

What shall I do with drone comb when a part of a frame is filled with it? If I cut it out the bees persist in rebuilding with drone comb or leave the space empty.

Cut it out and insert a piece of worker comb, or have it filled out in a weak colony on the plan given.

We cannot answer the following question positively but think the Queen's fertility would not be impaired. At any rate we give it as PROBLEM 24.

Will it render a Queen less prollide to keep her for a length of time in a small nucleus hive where she can lay but a few eggs each day than she would have been if she had been given to a large swarm as soon as she began to lay?

How do you fasten a division board in a hive to keep it in place?

Haug it (the board) as you do the frames.

Can I winter bees in double width Simplicity hives? "Answer next May. Don't know nothin' 'bout winterin'."

The above was Novice's reply before we had time. We think the double hives will winter equally well. Should there be a great quantity of bees we would leave them on their summer stands, and house them only when they seemed to need it, if they did at all. Perhaps Novice is right after all.

Will it do to take nearly all the honey from a live when it is coming in tast?

Every drop we should say. Our bees always get more in fifteen minutes or less.

Now who hasn't had just about the same tria's as S.? It reminds us of our own work over agaln. The last we hear of him is as follows; we hope he bears it with resignation and will "hunt np" where the honey comes from.

July 23rd-I have commenced extracting-the first July 2374—I have commenced extracting—the first bils year—took 44 lbs, from 4 hives. Not ½ of it was capped but it is quite thick. Several other swarms are diling up fast. It is very dry here, I don't know where they get their honey. JOSEPH SINTON, Ithaca, N. Y. July 10th, 1874.

### HONEY COLUMN.

THE A. B. J. gives the following in regard to honey buyers.

CHICAGO.—Choice white comb honey, 28@30c; fair to good, 24@28c. Extracted, choice white, 14@15; fair to good, 10@12c; strained, 8@10c.

CINCINNATI.-Quotations from Chas. F. Muth, 976

Central Avenue.

Comb honey, 15@35, according to the condition of the honey and the size of the box or frame. Extracted choice white clover honey, 16c. 33 lb.

ST. LOUIS.-Quotations from W. G. Smith, 419 North

Main 8t. Choice white comb, 25@29c; fair to good, 16@22. Extracted choice white clover, 16@18c. Choice bass-wood honey, 14@16; lair to good, extracted, 8@12c; wood honey. 14 strained, 6@10c.

NEW YORK.—Quotations from E. A. Walker, 135 Oakland st., Greenport, L. I. White honey In small glass boxes, 25c; dark 15@20c. Strained honey, 8a/2c. Cuban honey, \$1.00 % gal. St. Domingo, and Mexican, 9@095 % gal.

The Chicago Honey House, 360 Wabash Avcune, Chicago, Ills., has always been prompt

and reliable we believe.

B. K. M. mentions that E. C. Hazard & Co. 192 and 194 Chambers St. N. Y. advertise for 10.600 lbs of honey, but as this amount would not cover the present crop of Medina Co., we think perhaps 'twill be as well to advise, as heretofore, that our friends develop their home market. After your honey is stored in barrels, place them in a cellar or away from the frost, that the honey may not candy too soon, and then draw it out by a suitable molasses gate into quart fruit jars, or jars made expressly for honey, and after it is neatly labeled leave it for sale at your neighboring stores and groceries, for ten miles around if need be.

If they are kept supplied the year round, an astonishing quantity will be sold. We sell such jars for 75e., and allow 10 per cent commission to the dealer when it is left for sale. This is considerably better than is usually paid for it by the barrel. We would respectfully refer dealers to the following list of subscri-

bers who have reported.

Could you tell me who would pay cash for boney on receipt of same, or at Depot here. I wrote to the Chleago Hency Co., but get no answer. I will have over 1000 lbs. Basswood honey, I would sell at 14c.

R. S. BECKERLL. New Buffalo, Mich.

We have I should think a ton, perhaps more, at the present time of very ulce houey.

M. D. Miller, Peniusula. O.

11 coloules this Spring, Increased to date, to 24, and extracted 385 lbs. honey. JOSEPH M. BROOKS, Columbus, Ind. July 20th, 1874.

FRIEND NOVICE: - My colonles (19) all came thro' winter in moderate condition. I have at date extracted 1000 lbs, honey (nearly all clover), for which I will take 18 cts, per lb. It is in wax coated barrels.

Wm. HARRISON, Hopedale, O.

A. I. Root & Co., Shis: — We have not been in the habit of giving our reports to the public, but if they will be of any service, we are pleased to do so.

We have this year four Aplaries which have produced as follows: East of Oberlin 1% miles, 55 stocks West " " 3 " 36 " Greenfield, Huron Co. O. 28 "
Kroedom, "" " 74 " 1400 4200

We expect to extract about another barrel from our Aplary east of Oberlin. Most of our honey is from Busswood. We hold it at 20c per lb.

We are preparing to ship a car load from here to Henry Co. on the 28th of this month, where we expect them to gather as much during the fall as they have done during the summer.

NUNN BRO'S & Co. Oberlin, O.

#### OUR MEDINA CO. HONEY CROP.

Have increased from 32 to 80, and taken 2000 lbs. of oney. E. C. BLAKESLER, Medina, O.

Have increased from 14 to 29, and have 500 lbs. of oney. Wills A. Pheles, Mcdina, O.

Have increased from 35 to about 50, and have 4 bar-rels of honey; about 1500 lbs. of honey uett. G. W. DEAN, River Styx, Mediua, Co. O.

Thave about 500 lbs. clover and basswood, mostly the latter, for which I want 18c.

JOHN WILLIAMS, Marr, Medina Co., O.

I have taken 53 gallons (about 580 lbs.) out of 20 hives, keeping some for box honcy. JOHN W. WIHTE, Chatham Centre, Medina Co., O.

I have taken 4000 lbs. from 61 stocks, and have in-ercased my swarms to 90 in number. All my hives are well filled with honey, more than I shall want for wintering. W. H. Shane, Chatham, Medlna Co., O.

I have made good use of the extractor I bo't of you. I have made good use of the extractor I bot of your I have extracted 180 gallons (ucarly 2000 lbs.); 80 from my own, and the batanee from my neighbors. Price 18c in bulk, or 20c retail. I have also 18o lbs. box or cap honey. I could have taken a good deal more extracted had I not waited for box honey. My better half thinks we have found the hand of Canaan, which was to flow with milk and honey.

Wim. PAYNE, Spencer, Medina Co., O.

We have about 500 ibs. of white clover and basswood oney which we will sell for 20c per lb. Tho bees do We have about 500 lbs. of white clover and hisswood honey which we will sell for 20c per ib. The bees do not seem to work much on hemp yet, if they ever do not seem to work much on hemp yet, if they ever do also a spring wagon all rigged to take our bees to the swamp when the time comes; our wagon holds 14 hlves without piling any on top of others.

F. R. Shaw, Chatham, Medina Co., O.

I commenced extracting about the middle of June after Alsike clover blossomed. In three weeks I extracted not tess than 1500 lbs. of clover and Lindenhouse of excellent quality. Price for honey is 16e per lb. 1 had last fall 25 stocks, lost nor e, they were all healthy when spring cause. They are all Italians. I have increased them to 55 by dividing.

A. A. Ricke, Seville, Medina Co., O.

The above foots up a little over 13,000 lbs. and yet does not include several who use the Extractor, who have not reported as yet. If every county would do as well, and we know of no reason why they should not, honey would be as common an article of food as butter, perhaps. We must confess to a feeling of satisfaction in receiving these reports. Most of the gentlemen named are busy farmers, and yet their bees were wintered almost without loss, although at least four of them used the Extractor last season as closely as they have this. Do you ask if there have been none who got no honey? Yes, but they have box hives and box honey, or rather don't have any honcy at all, this year, while every one who has movable frames and an Extractor has had a good yield per hive.

About 26c per lb is wanted, unless it be friend Rice, who will doubtiess dispose of his

quickly at 16c.

## Heads of Grain, FROM DIFFERENT FIELDS.

I, ROOT, Dear Sir:-If Bee-keepers are as busy as we are this warm weather you will not hear much from them. We are writing from our extracting room where we keep one eye on the bees through the wire screens and use the other

one to guide the pen.

We pride ourselves on a comfortably arranged ex-We pidle ourselves on a comfortably arranged extracting room. Our table Is about 7 ft. long by 2 wide set right In front of the reversible wire serven window frame and has a boxed off apartment at one end big enough to hold the extractor and just high enough to tet a 45 gal, bibl under. We did try to have It arranged so that a little wooden boy (or similar device) would kick up his heels and notify as when the barrel was nearly fall, and he dishr't work worth a cent, so for want of that the to get him fixed just right, we had to discharge him and rely on a gimlet hole bored so the honey runs out (just enough to notify as when the barrel Is nearly full) and Is caught in a pan.

We have used a Gray & Winder and other extractors but never had one to suit as so well as our old home made one, lixed over with your improved gearing and frame.

ing and frame.

Our cappings drop through a hole cut in the middle of the table and are caught in a vessel set for the pur-

we can attest to the usefulness of R. H. Dickson's frame racks, as we have four similar ones in use, on which we carry 14 or 16 frames as easily as 6 or 8 formerly. In regard to extracted honcy—we will self most of ours by commission put up in neat jars holding from 5 pl. to 2 qts.—some four or five sizes. We bought our glass ware at Pittsburgh from some of our old friends. Thos. J. Walton, Salem, O. got us up some labels of our own designing purity, at \$3.75 per thousand. By placing the label at a distance, you will notice the advantage of the large letters in bronze. Our apidary is had out after your rexmound plan.

Our aplary is laid out after your hexagonal plan, and we like it very much, being much the handlest arrangement we ever had. Our 115 Concord vines are growing beautility.

use a Langstroth frame from necessity, probably continue to do so, although we would other-wise willingly conform to a standard, for we think the idea of Aplarians arriving at some degree of mi-

formity, an excellent one.

Our hives range from 10-12-14 to 20 frames, the latter of which we had adopted before the "Standard

Our hives range from 10—12—14 to 20 frames, the latter of which we had adopted before the "Standard blve" articles appeared, as best suited to our use. We thought then that the 30 inch ldea was large but it has been growing in our head and has not diaminished since, for we now find it hard work to keep our 20 frame stocks from casting swarms.

Now I must tell you all I know of smokers. One of our visitors wanted to know on hearing that we burnt "Budalo chips" if we "sent West for it?" That's just where we get it. After a dry spell we take our basket on our arm and "go west" to the barn-yard or pasture lot and fill it with chips. Those a couple of inches thek, sawed into strips, leaving each plece a couple of anches square, when dry are splendidly adapted to to the wants of the Apharian. By pouring from the benzine jug a few drops it can be lift ha undante's time, will burn nearly all day, giving the best kind of smoke, and searcely ever blazing naness eaught by a high whild. We keep ours constantly burning while going the rounds, and it is then ready for use when we run seroes one of our hybrid stocks that want to go for the eyes. When one gives out we lay the coal remain-yes, on the end of another and thus keep the smoke going. going.

Our honey season still continues good and the hon-

Our honey season still continues good and the honey yis now nearly as clear as water, and of good consistency. We have taken over 200 gallons (and ready to go at it again) from 43 colonles.

We will have all our bees pure before long and hope to cate the field with good pure stock next spring, and not a black bee wildin several miles of us.

Possibly we may enter the \$1.00 list next season for we like the line of various thereby.

nd not a mack ...
Possibity we may enter the \$1.00 are.
e like the fun of rearing Queens.
Please send me a few Queen Registers and find enlosed 25c, for same, Yours respectfully,
losed 25c, for same, Linue 28th. D. LYONS BROWNE.

closed 25c, for same,

I also have one item on early. Bee Pasture which I consider of value, If you are of the same mind, you are unpublish it for the benefit of the Brotherhood. You are aware that in the West and East perhaps, growing of forest funber is becoming part of the larmer's occupation, and Maple is one of the kinds most need; now it bee-keepers will go into the plantations of young

Maples and trim off small limbs, or wound in any otleor manner the trees early in the senson, the sap will flow down the trank of the trees forming a syrup which is excellent for the bees, comes when we most need it, no danger of drowning the bees and it will not injure the trees in the least.

JAMES SCOTT, Epworth, Iowa.

A very good idea without doubt, and the blossoms of these young Maples are also au important source of honey, when the weather is such that the bees can gather. Would not letting the sap run down the trunk be a wasteful way of doing it and would it not induce the bees to go out in unsuitable weather? you see friend S. we feel like a "burnt child" in regard to the latter idea. We would hazard the suggestion that it might injure the trees afterward, if we hadn't raised so many objections already, but we heartily advise planting forest trees by all means. Our 4000 Basswoods are looking beautiful now in spite of the abuse the grasshoppers gave them last season. We have just lad them trimmed up and the ground spaded around each one and they are making a fine growth.

DEAR NOVICE:—GLEANINGS for May (the missing number) is at hand. A postal card is not half big enough to express my sympathy on; "I know how it is myself." Four years ago I lost almost all my bees—cause—late transferring. I am satisfied that you are right, that lack of pollen did the business. We are not ready for you to abdicate the editorial chair vet. If we can find the ren\*on your bees stored no pollen, your loss may be more useful to as than Bolin's success. You say that for the last three years you have found but little old pollen in your combs in the spring, is that not about the time that you have run the extractor exclusively, and fed up in the fall? Is it not barely possible that bees, when kept robbed with the extractor, in their engerness to store honey for whiter neglect to store pollen, except for lumedicte use? I robbed one stock last season of all their honey as fast as gathered; they gaye me double as much honey as as gathered; they gave me double as much honey as any other stock, and kept up the supply of brood, but as soon as flowers falled and the brood was all halcteas soon as flowers falled and the brood was all hatched I gave the bees to an adjoining stock. An examination of their combs to-day, shows them to be perfectly empty—no pollen—a fact I never noticed before. If we could feed pollen to de weather, all would go well. But if your system of extracting all the honey, and feeding for winter on syrinp, makes as entirely dependant on an early spring for success, I think we had better "go slow" in this climate, where early springs are an exception. The fact that Bolin's bees were wintered on natural stores is proof to me that.

springs are an exception. The fact that Bolin's bees were wintered on natural stores is proof to me that they also stored pollen.

I do not use the extractor as a general thing during the last half of July, and the first half of August, (the time Indian corn is in bloom) and when I begin again I flind the combs half filled with pollen.

I think more of my bees than of any thing else I have, (wife and children excepted) and I tremble lest I lose them again. Bingham of Mich., I see has come to the conclusion that it is all luck, and I was always an unlineky chan, so you had better reserve a nine an unlucky chap, so you had better reserve a place for me in "Blasted Hopes" corner. Heavy losses occurred in this ylcinity this spring,

an inflicky chap, so you had better receive a pace for me in "Blasted Hopes" corner.

Heavy losses occurred in this vicinity this spring, chichly from attempting to winter weak swarms. I lost three such, all the weak ones I had. My strongest swarms wintered best, though their combs monicied some, but they soon cleaned them. It is very unfavorable weather now for bees, cold—rainy—windy, and has been for two weeks. I had my bees in prime order for honey gathering—made some swarms the 26th of May—was raising some Queens—had thousands of Italian drones, and no black ones to speak of—had begun to "go" for some of the strongest of a Novice to prevent swanning, when this bad weather came on, cold as March. I have done all I could to keep my bees up, but they are killing drones, destroying Queen cells, throwing out brood, and entiting np Jack generally. If the weather don't change I will be put back to the 1st of May. "Sich" is beekeeping.

Yours trufy, R. L. JOINER, Wyonding, Wis, June 14th, 1871.

This is a new view of the matter we must

This is a new view of the matter we must confess, but it will hardly apply in our locality, for we seldom if ever use the extractor after

the middle of July. Besides, box hives have gone the same way in many cases.

But there is nothing like ones own experience for a school; and I had one the other day. I had a swarm put into a live containing 13 frames (Standard) and had il brought to me the next morning—they had swarmed out twice before and returned to old live. There was a ½ inch hole in each end of the live for ventilation and I thought I would leave it closed until night for safety; and to give them something to keep them quiet, I laid a pleee of comb honey on quilt and tarned the corner up to give them passage. There was plenty of comb tastened in the frames. At alight I opened it and they were like so many drowned rais, only a few bees in crawling condition and they were not so, very long. Well, that experience only cost me \$3.00 cash, and a good deal more chaptia. But I will try to save a more valuable swarm some time. [Hon't fell anybody what a novice I am.]

E. HUNTER.

But we fear we shall have to tell it often, for some one is sure to "cut the same caper" every little while, during the warm weather. A new swarm is always so loaded with honey for their new home that they can bear very little confinement, and they have about as little need (for the first day) of honey in the comb, as of a work on mathematics to direct them in building their cells properly.

Are the curved end honey knives of Winder's, patented?

enter?
On July 61h, had two swarms of bees come off from one old stock, one at about 10 A. M. and the other about 3 P. M. I did not literal they should swarm, but they beat me in time.

F. W. CHAPMAN, Morrison, Ills.

We should suppose not for if it is, the patent certainly cannot "hold." Quinby, first used and recommended knives with a curved point and they were described and advertised some time before the one you mention. Two swarms from one hive is not very strange if they were second and third swarms, but it the first of the season 'twould be rather unusual in one day.

My bees nearly all died two whiters ago leaving plenty of honey, but are making up for it this summer. I have had 5 swarms from one, all good, and 20 lbs. box and 21 lbs. extracted honey thus far. Can't say what I may have yet. May the wind-mill continue to run. A. V. CONKLIN, Waldo, Ohio.

What could I get for the yellow wax made into small cakes as stated in A. B. J. Vol. 7, page 133. It would be some work to cake it, but still it it would sell for what he thought if would, it would pay well. Can you give any information on the subject?

Wesley Brown, Homer, N. Y. July 10th, 1874.

Some time ago we made some pretty little cakes of wax with a loop of narrow scarlet ribbon fastened to each by pressing the ends into the wax before it was cold. The cakes were made by pouring it into small fancy dishcs, they can be had very cheaply of the tin-smiths, they are called "patties." Now these cakes to be suitable for a lady's work box should not exceed ½ or ¾ oz. each, and they retail for 10c. As the French wax sold for this purpose is much adulterated, a pure homemade article would doubtless find a ready sale. The best way, as with honey. Is to supply your home market first. Take a dozen or two made of nice wax, (that from the "cappings" is beautiful) to your merchant or grocer and give him a commission for selling, and if you are not careful he will soon he ont, as we are at this minute; we haven't a single cake left with the "scarlet ribbons."

Do the Rocky Monntain bee plants Celone integrifolia and Leophanthus anisatus yield fodder for cattle, or honey only?

A. S. We believe, nothing but honey. If we are wrong will some one please set us right.

We have no Vetches but can get you some if you wish, they do not amount to anything in this climate. It is too hot.

B. H-STAIR & Co. Cleveland, O.

The above was rec'd in answer to an inquiry from us, sent them in April.

In using the "Standard Hive" for box honey would you advise putting boxes in the ends of hive or on top of frames?

O. L. Ballard, Malone, N. Y.

We think the most comb honey would be secured by taking out frames as fast as filled and scaled in either the back or front of the hive; taking care that they had clean new comb for the purpose that had not been used for brood rearing.

Please tell me through GLEANINGS the best way to remove the bees from the comb before extracting. If you ever told us I don't remember of seeing it. The Italians stick awful tight don't they?

ALFRED McMAINS, Charlton, Iowa-

Provide a bunch of Asparagus tops composed of three or four stalks as thick as a lead pencil, and with broad bushy tops. Some fine annealed iron wire cut in pieces six inches long, is bandier than strings for tying them together, and they are to be tied in the middle of the top as well as where held in the hand. After shaking off as many bees as you can, take the brush in the right hand and roll it so as to roll the young bees off before the entrance, and they will crawl in safely. If your brush gets smeared with honey, rinse it off in a pail of water. It may be used until so dry it breaks up.

We now rejoice—or rather we feel doubtful over 73-stocks of bees. Sweet clover, as well as their watering place covered with the busy fittle fellows. We have just been glying one contrary swarm instructions not to build their combs across the frames as they were doing.

D. P. LANY, Koshkonong, Wis-

'I think more than one ball the bees in this country died in April for want of supplies. It rained all the time so that they couldn't get out. Blooms were atundant through the month. I found out in time that mine were dying and saved them with syrup. W. F. LEWIS, Baldwin, Miss.

If we could save our bees by simply feeding them we should be quite happy indeed.

We cannot imagine such a case as the lack of pollen, we generally think we have foo much; I have cut out whole skeets of it but I won't do so any more. Bees are doing splendidly here, I have taken out 840 lbs. so far, some of it, perhaps 300 lbs., was from the fruit bloom. It is not pleasant to the taste and very dark-clover is fine and we had a fine shower Sunday that brightened filings up very much; some of my hivesfilled the apper story in four days, you seldom see it better than that.

H. E. CUERY, Cin. O. June 2nd.

Bees in this locality have been doing but very little good. I lost 4 colonies ont of 6 in the last season, and 4 out of 8 in '73. Had half changed to Italian and have lost them all. They cannot stand the cold weather that we have in this part of the world, and all that have perished for me, were very rich in natural storeshoping to have better success in future, I am, your truly, S. H. SMITH, McKeeshort, Pa-

We think friend S, you are a little basty in deciding that Italians are less hardy than blacks; such sometimes seems to be the case in a few instances, but taking the general average where conditions are equal and we believe the reverse will be found the rule. Where Italians are not given sufficient room they often prevent brood-rearing by filling the live completely with honey, and under such conditions they are insufficient in numbers

when winter comes to keep up proper temperature, and of course must perish. Was not such the case with your own? The extractor is almost the only remedy for such troubles.

such the case with your own? The extractor is almost the only remedy for such troubles.

FRIEND NOVICE:—Those eggs came to hand after see hours from the time you mailed them, but the comb, box and all was pretty much smashed fine; still I have from one end of it, where there was a cell or two which was not smashed down to the base, two larvae hatched, but no Queen cells found over them as yet. Now I want you to put me up some more as I direct; On the morning of the 24th of July put u nearly new worker comb in the centre of the brood next where your imported Queen is. Look at It on the morning of the 25th and if there are eggs in It send them to use by the first mail on Monday the 27th of July. Now bow to put them up: Make a box of wood ½ lineh thick. Make it I liree inches square by two luckes deep. Have the top or cover go on with screws so as not to jur the comb. Now go to the hive and get the oldest eggs in the comb ubove mentioned, cut out a piece two inches square and wrap it up in soft paper so you cannot see a bit of comb. Put & luch of cotton wadding in the bottom of box, put in comh and tuck in wadding on each of the four sides, then put In wadding until box Isfull. Screw on top, and send. Please excuse us for becoming teacher to an older member of the bee-keeping fraternity, for we have faith that if the eggs are put up so they will not jur we can hatch them, for since we sent you for the eggs just received, we have placed a frame of worker eggs in a hive and and hud them fatch all right, after they had been left in our shop away from bees, eight days. You ask on your card five are ecrtain that eggs will hutch ufter being kept a month. We will give you the facts. In using our small hive described in A. B. J. we sometimes get drone brood in boxes. On linding such we set them out, thinking to spoil it and left frem out in one instance nearly a month, and then put them in the have gain and to our surprise the next day but one found plenty of farva in the boxes. We now take precaution to see that the eggs them again.
The poore

The poorest season so far, we have ever known. Our bives will not average 3 lbs. of honey in each at date. Cause, cold and wet. Basswood just opening and we are hoping for better times.

G. M. DOOLITTLE, Borodino, N. Y. July 18th, 1874.

P. S.—In the comb of worker eggs referred to above the bees only hatched those that would hatch in 24 hours. The rest were all cleaned out.

No excuse is ever needed friend D. for presunding to teach us; our capacity for taking in instruction is boundless, and we will faithfully perform our part of the experiment so long as there is any hope of success. When we are desired to send the comb in such wooden boxes, as are described we shall have to request that about 10c. additional be sent.

The following is just at hand. Our opinion is that the whole secret is warm weather. Such as we invariably have in July for instance.

Such as we invariably have in July for instance. Thursh! Off with old hats and new. We have two fine Queen cells nearly ready to seal, out of our two larve, hatched from the comb of eggs we received from you all smashed up. Our heart went down to our boots when we found that the bees had taken all the larvie out of the comb we had away from the bees days, and we expected our imported larva had fared the same; but we really have two flue Queen cells from them.

G. M. D.

A. I. ROOT & Co.—There now, you have told on me for losing my two hundred and jifty haves of bees last spring, but I do not mind that so much since you did not tell the fact that I lost near four hundred colonies the previous spring and near two hundred colonies the previous spring and near two hundred colonies the sleing before that, not leaving me five per cent of my stock each lime. I started with I7 lilyes this spring and now have 80 good colonies from them besides taking fitteen hundred pounds extracted honey, and now I my good colonies to live over mutil next hay, and I used to whiter so safely that I would not give 20c, per hive for insurance. Two thirds of the leaving this region have swarmed and perhaps one half of them have made some box honey. Clover was

entirely gone July 1st. Basswood we may say com-menced yielding that day and lasted nutil the 5th. R. Wilkin, Oskalooya, Iowa, July 16th, 1874.

From seventeen to eighty, and 1500 lbs. of honey is certainly ahead of us friend W., but we think you mentioned having purchased Queens for them, in a former letter. If Basswood only lasted nine days with you, we are certainly ahead here, if we are not a Basswood country; we have had almost three weeks and considerable is gathered yet from occasional trees that blossom late.

FRIEND NOVICE:—Our 160 colonics have increasto 125, mulnly by natural swarming, and that notwithstanding all the opposition I could bring to bear,
short of extracting the honcy from the breeding
apartment, which I did not wish to do, as I wanted
all the box honey I could get. Bees obtained more
honey than usual from fruit blossoms, but the yield
from white clover is comparatively light in this section, owing to the clover being badly winter killed,
and also injured by drouth. In many places bees
obtained just honey enough to keep them breeding
and swarming, and where they were permitted to
swarm at wiil the yield of surplus loney must be
light. A friend told me he knew six swarms to Issue
from one of his stocks, and he did not know how many
more came out and went to the woods.

I only permitted my colonies to swarm once, with
the exception of one which swarmed twice, consequently they were tull of bees when Basswood bloomed, and worked on It accordingly. All of my old
stocks, with one exception, and many of the swarms
are not work in surplus boxes. I have from 6 to 22, 4 or
5 lb. boxes on each. I have taken off a few hundred
pounds and there are unore ready to come oil as soon
as I can find time to attend to it. But most of the
boxes are not quite ready to come off yet, as the honey
Is not all scaled up. Bees mre beginning to work on FRIEND NOVICE: -Our 100 colonies have increas-

as I can find time to attend to it. But most of the boxes are not quite ready to come off yet, as the honey Is not all scaled up. Bees are beginning to work on the second crop of red clover where it was cut early; and It drouth or the gruss-hoppers do not use it up as they did last year, I hope for a fair yield of honey, notwithstanding the uninvoruble spring. The one old stock that has not worked in surplus boxes was the weakest I had in the spring. It has become quite strong, but I have kept it as a kind of reserve upon which to draw whenever I want a frame of brood or honey for any purpose, honey for any purpose.

Honey seems to be thicker and heavier this year than common, as boxes that seldom contained more than four lbs. hold almost five. The dry weather evi-

than four lbs. hold almost five. The dry weather evidently hud something to do with it.

All of my old colonies have loo much honey in the breeding apartment; many of them twice what they should have, and it will have to be extracted after that in the boxes is scaled up. I do not wish to do so now, as I have found by experience that extracting much ont of the breeding apartment during the working senson always detracts from the box honey.

JAMES BOLLY, West Lodi, O. July 20th, 1874.

We must say friend B., that we are disappointed in your report. We had fixed our opinion on having you report at this date about 10.000 lbs of extracted honey, or 100 lbs. to the colony on an average, and here you have been allowing your 100 stocks to "fool away their time" (begging your pardon) on box hon-Of course, you may know best. Our beekeepers here, who brought their stocks through in any kind of shape are making a good yield with the extractor, but taking an Apiary through, they would not get one fourth the amount in boxes, so far as we can learn; and yet the prices are constantly quoted in our Cleveland papers at nearly the same. Thick, well ripened, transparent honcy, is rapidly making for itself a market at a price but very little below box honey, and if you do not re-port at least 6000 lbs. of box honey we shall think you have erred in *summer* management, whatever may be your skill in wintering. There! we'll stop now lest some one may think our 212 barrels of honey and 45 colonies, are making us "sassy" again.

Out of fifteen colonies all of which came through the winter in good condition, I lost cieven in the month of April. I had set them out on the summer stands about the 15th of March, and during the long rold weather that ensued, the lives not being shaded from the sun shine, the bees would fit out and become chilted and be mable to return. Before I was aware of the fact I lost cieven. Others in this vicinity have been equally unfortunate; one man lost forty colonies, about all that he had. Win Caldwell, Elmore, O.

My bees are doing splendidly so far this year, I staried the season with I7 and now they have increased to 35, all natural but 4, and still swarming every day. Mine are all Italians but 2, and they have not bride a move in that direction yet. Black bees about here are doing nothing of any account, and several have complained that the worms are destroying them aff. Mine are the only Italians within about 15 miles of here.

E. A. Sheldon, Independence, Iowa, Whatovor the Blacks, may do in early approximate.

Whatever the Blacks may do in early spring, Italians are certainly far ahead in the honey season.

You say on first page of July No. of Gleanings "Hives that have been destitute of bees ever since freezing weather """ may be considered safe." 32" Is freezing, and to my certain knowledge a temperature of 11" will not kill the moth germs in a certain stage, but 8" or 10" will do it sure. This is not guess work but a fact known to me by actual and extremely careful experiment. Hives were kept air tight after an exposure of 14" and were nearly destroyed.

Yours respectfully, James Heddon. Downgiae, Mich. July 184, 1874.

Downgiae, Mich. July 1st, 1874.

We thank you for the correction, and acknowledge our error. We only knew that combs kept in tight hives over winter in our barn were never troubled, but if placed there when taken from the hives in warm weather, there was sure to be trouble.

My opinion is, the large hives will be no remedy for the common maindy in bees; with me large colonies fave init as fadly as small ones. Scarcity of bee-bread may have something to do with it, yet I think but little. My bees had badly fulled long before breeding had ceased; almost all my hives had bee-bread left.

R. Wilkin, Oscaloosa, lowa.

I put slx stocks of Italians in cellar last fall, after extracting all natural stores and feeling sugar-syrup. They all wintered well, but found one Queenless this spring; united it with another stock and they have done well. Made five new swarms three weeks since, raised fourteen Queens and have extracted 95 lbs. Giorney at present writing; shall expect to get more soon. White Clover is abundant here now and Basswood promises well. You will see that I have no reason to be discouraged with bee-keeping.

E. W. POOLE, West Richfield, O. June 29th, 1874.

1. Ought surplus receptacles to be pul on or over a new swarm before the main frames are pretty well filled?

2. How do you manage to make the bees build their combs straight? You somewhere say we must watch and compet them to make their combs straight. STEPHEN YOUNG, Mechanicsville, Iowa-

1. If our friend will excuse the liberty we would advise him to put his surplus receptacles where neither he nor his bees will ever see them more. So far as we know they rarely use them until the hive is crammed full of honey, and then they often lose another day or two of the best part of the honey harvest, waiting to think about it, and then about half the time conclude not to work in boxes at all. A couple of our neighbors who have used the extractor successfully for some years, thought they would try a few hives for box honey this scason, but the sight of hives filled and ready to be extracted, with boxes untouched was more than they could stand, and in a trice they were emptied, giving both the bees and the Queen room; and now they labor industriously like the rest.

2. Have every comb built between two others, or between one and the side of the hive, and they cannot well be other than straight.

or between one and the side of the hive, and they cannot well by other than straight.

DEAR NOVICE:—I have not for two years used my smoke at my home aphrry where I open some of the hives daily in the season, and where all my children play as carelessly as if there were no such things as bees. Honey is so scarce during the last haft of May, whole of June and July that I have to divide upmy apiary into three or four; take them 51 an ordinary three-spring wagon and trot off on our smooth roads, as fast and as safely as if pleasure riding.

I never could use a feather, nor a wisp broom in brushing bees from their combo.

Pleuty of good weeds assatily abound, but I find an asparagus stem with plenty of small limbs, just the thing; these vegetable brushes do not make the bees mad will, as soon as they see the right kind of a brush coming rull off like peas. I have succeeded in replacing my last fall's number of stocks—51—by division, have aff in tip-top order, ready for any iting that comes in the way of honey.

I put my bees in my ceftar, in the fall, under the main living room of my house, ventilating very little, and have good success. I lost two between Nov. 55th, and March 1st, the day set out—starved—leaving two full frames of honey on the side of the bive opposite the bees. March was so cold, and April too, for that matter, that after a couple of day's flight, they could not be examined for three weeks at a time. The consequence was two starved, and four or five came out and found other hives. All my hybrids played that triek on me. They invariantly left clean combs, with the property of the starter of the property of the starter of the starter of the property of the property of the starter of the property of the

spring swarming out, belonged only to hybrids, but we believe the full bloods are sometimes quite guilty of the same trick. As a general thing weak colonies seem to be the ones most addicted to it, but there are many exceptions to this rule that are hard to get over.

Sudden yields of honey often come quite unexpectedly and from a variety of sources, therefore, 'tis always well to be ready to take advantage of them. Give the Queen room at such times at all hazards, and this can only be done with the extractor. When our present basswood yield first opened we tried giving the Queens empty combs of which we have plenty, but even when we gave a colony two, in the evening, they would be filled with honey before she could more than fill a circle three inches in diameter.

Oh Novlee! Can you believe me when I tell you that I m going to have at least three Queens from those eggs—such is likely to be the case I assure you, for there are three nice cells started and I can see the young brood in the jelly at the bottom. The eggs flid not reach me till Thursday. I think they came as lar as eight hundred miles.

A. McMAINS. as eight hundred mlles. Charitou, Iowa, July 10th, 1874.

Very glad indeed to hear it, and perhaps if we could always be sure of having such beautiful warm weather as we have had during this month, we might send them 1000 miles or more. The above piece of comb if we remember correctly, contained eggs just laid in a piece of comb containing bees just gnawing out. If we cannot manage some way or othcr, to give all our readers the benefit of the Italian bees without such enormous expenses and failures as have been the rule, welshall think we are a failure in one respect at least.



# DEVOIED EXCLUSIVELY TO BEES AND HONEY

Vol. II.

SEPTEMBER 1, 1874.

No. IX

### HOW TO CONDUCT AN APIARY.

No. 9.

NE year ago we sald, "in time of peace prepare for war" and we say so again now, but really, with less confidence in our ability to direct what preparation is to be

made, than we had then.

So far as dysentery is concerned, we have no fear at all but that it is perfectly under control, but the dwindling away, and rapid depopulation of the colonies in the spring, is a matter which we fear is almost beyond our skill. From great numbers of reports, from widely scattered localities we find that some Apiaries winter just as well as they used to years ago, colonies dying only from starvation, while within a short distance at a neighboring Aplary they may all die. These results come when the circumstances are so widely different, and where almost every kind of treatment has been given, all the way from box hives out doors without care, to movable combs, Italians, and honey extracted until frost comes, that we think we are excusable for thinking it an epidemle among bees that appears in some Apiaries and not in others; and for which we have as yet no positive remedy, for the box hives have failed in one case and those which were extracted came out all right, and the next report would be right the reverse.

Mr. I. E. Daniels of Lodi, this Co., purchased several colonies and moved them late in the fall after all pasturage was over. A part of them with the rest of his colonies were left ont, and a part put into his cellar, yet all died about alike, while his neighbor a few miles away, from whom these were purchased, bost none. Is it not rather probable that some disease used up friend D's Apiary? His colonies were remarkably strong in Sept., when we examined them, and he has hitherto been a most careful and successful Apiarist. Again, the honey that apparently killed the bees in '73, whitered them successfully in '74, see pages 22

and 58, current volume.

Now it is certainly poor encouragement to be told our bees may all die in the spring whatever we do, but facts are stubborn things. ertheless we are by no means to fold our hands and give up; strong colonies through this trouble, as with all others, have almost uniformly been the ones, if any, that came safely through the siege; we are to bend our energies to the work of making all good.

P. G. says she could take *one* colony and build it up strong, arrange the stores just right, and fix it up so she knows 'twould winter

either in doors or out; how many of our readers feel the same way? If they can do one, why not fifty? Is it time only that is needed? If such be the ease 'twill probably be a better investment of this precious time, to go to work now, this month, and if conscious that we have too little nerve or energy to put our whole Apiary in "apple pie" order at once, perhaps we had better take one at a time, and make believe for the time being, 'tis our sole possession.

Now the question comes up as to what is to be done, that is, what do we know from past experience etc., can be done safely; not in an experimental way, (manure etc.) but established, that all or nearly all will agree on.

Suppose our readers stood about us, and we pointed to a colony, and addressed them

something after this fashion:

"Fellow laborers can you all agree on what shall be done to put this colony in good shape for wintering? How many bees shall we have? Is there one of you now, that would be satisfied with a pint, a quart, or even two quarts? hive contains ten Langstroth combs, if we bring brood if necessary from other hives, (thereby reducing the number of colonies) nntil at least seven of the ten combs contain brood, and bees enough to cover them nicely, will it be too strong this first day of September?

We think the majority of you will agree that it will not; and also that twill be just as well to leave the brood in its natural position. If honey should come in during the fall we can put empty combs at one side or above them,

to be used in the extractor.

In regard to the amount of stores needed, you will all probably agree that if the brood combs are all bulged out above the brood with scaled stores, and the other three full and heavy with pollen and scaled stores also, that

they have an ample supply.

Uncapped watery looking honey, you will all admit is not to be considered desirable. We shall use sugar syrup in place of honey, and it will have been fed to them principally du-ring the mouth of August; during this month we shall also feed enough to keep up broodrearing briskly, and shall move the combs about but little; leaving each colony all the pollen they have gathered and just in the position they have placed it.

If after we have fixed everything the best we know how, they should die, we can console ourselves with the thought of having done our duty at least, and that bee enliure is not the only pursuit having its drawbacks, by any means.

#### OUR OWN APIARY.

O-day, July 30th, after getting our Augnst number all safely in the Post Officewe always feel as if we had got the washing done and ironing too for that matter (as the women say) when they are all printed, addressed, wrapped, and tied in their respective bundles-well, after this was all done, as we were saying, we repaired to the Apiary which had been for about three days pretty nearly running itself. Now before telling you of the wonderful sight that met our "opties," shall have to remark that our friend Dean had just one week ago to-day, brought, us a box of bees, to be exchanged for brood from our imported Queen. Well, we took ont three combs, and cut the eggs out of the centre of each—D. only uses eggs for all his Queen-rearing-and then just for fau we put these three combs into an empty hive, and after filling it ont with seven more containing stores only, we poured the bees he had brought, in front of the hive, and straitway had a flue colony, for he in his generosity had brought about a peck. These bees he had obtained from different hives and as he had hastily shaken them from the combs, of course they comprised all ages. Now the big wonder we have been so long trying to tell was, that we counted on these three combs, Oneen cells to the number of-to be exact, Novice found fifty eight, but P. G. only made it forty nine, but 'twas nearly night, and she says she skipped some that weren't good ones, "as if she could tell by the looks of the outside, Novice says. Well as part of them are very close together we shall get ont our "conserva-tory hatching machine" and then we'll tell all about how many good ones there were.

Aug. 3rd-Yesterday was Sunday. That is one fact; another is that it was the tenth day sluee our mammoth lot of Queen eells were started. In anticipation that something might happen to make Snnday work necessary to save them, about a dozen hives were located and furnished with combs late Saturday even'g. About half past five on Sunday morning, Novice arose put on a elean pair of linen pants etc., washed his face and proceeded to wipe it and comb his hair as usual while he sanntered about among the hives and grape vines. After finding all ou duty apparently as they should be, he proceeded to enjoy the tranquility of the early Sabbath morning by reading his favorite papers seated in the camp chair beneath one of the Lombard plum trees. It may not have been purely aecidental, his having chosen a Seat nearly in front of the hive containing the Queen cells; these he proposed examining a little later in the day, but intended to keep them nutil Monday if practicable. As he sat reading, his eyes wandered oceasionally toward the entrance and finally to get a fair view of every thing brought out by the bees, he got the broom and commenced sweeping away the immature plums and leaves that had dropped about the hive. Suddenly he stops and ejaculates, "As sure as you're alive that is a dead Queen, and here's another." Away went the papers; one of the Queens that seemed alive was placed in the sun in a cage, and then the hive was examined. A fine Queen was parading the combs and perhaps a dozen cells were

torn open, or had the lids hanging. Four Queens were found "loose," two of which were fighting; like friend Grimm of old, he tumbled these a yard apart in the grass, and the other two were put on separate combs, which were earried to new hives, bees, brood and all. bee house stove was wheeled out, the tiu Simplieity hive with hollow walls, mentioned a year ago, was placed upon it and the lamp lighted. In this the two combs containing the cells were placed, after shaking off the bees and four more nice Queens were found scattered about, after all was done. In fact Novice soon began to examine every bee found erawling on the ground, thinking it might be a Queen. Five more Queens were hatched during the day, and as fast as they hatched they were given to nuclei hastily extemporized by placing three combs of hatching brood, bees and all, in one of the new hives, or given to Queenless colonies. Toward evening to dispose of the last one a black Queen was killed from one of our natural swarms, and the young Queen placed almost the same instant on the same comb she had occupied. To-day we find her all right and no Queen cells started. Is not that a simple way of introducing? The whole operation scarcely taking threminutes. With the Simplicity hives we frequently open the hive and flud the Queen in one minute.

To-day about a half dozen more have hatched, and we have increased our number of stocks

Aug 4th—Sixteen more fine strong active Queens have hatched, and we have 61 colonies, and more Queens that we know not what to do with. We could very easily turn them into dollars if they were fertile, but the problem is to get bees to care for them until this be accomplished; we have already gone further than we intended increasing, and begin to fear we may not be equal to the task of making all strong for winter. We find ourselves often wondering if it be really possible that Queens just hatched can really be put safely in any colony of bees, without any bother of caging.

Our experience has been for the last three days, the same as last year, that Queens hatched without bees, can be placed in any Queenless hive, under any circumstances with impunity. As they have seen no other bees, they at once hasten to those presented them with perfect confidence, and this confidence is soldom a mistaken one for the bees receive them with a manner that seems to imply. "Well, she must have been hatched in our live, for how else could she get here in that shape?"

Aug. 7th—As onr colonies now number sixty eight, we think it is about time to stop, and direct what skill we are possessed of to keeping what we have. For the past two days our plau of making colonies has been something as follows: As soon as a Queen is hatched in our nursery we proceed to any full colony, and lift ont the comb containing the Queen; then with thumb and three fingers of each hand, we lift out at once three combs, brood, bees and all, and earry them gently to a new hive. After dropping the newly hatched Queen on top of these frames among the bees the swarm is made, and we have only to put empty combs in both hives until they are full again.

This process we had repeated so many times, we began to think failure impossible, but when we began to draw on our black stocks for bees and brood we were disappointed in finding two Queens in front of the hive, dead. This was passed over as a small matter, nntil to save the Queens that kept hatching, we killed our three remaining black Queens and gave them the young ones as usual. The whole three were found in front of the hive dead; three more were given them and one of them was soon walked out with a bee on each side of her, holding each a wing. We returned ber caged, the first eaging we have done for weeks. If this is another unfavorable tralt of the blacks, we shall assuredly endeavor in future to "run our Apiary" without their assistance. Again, the black colony that we requeened so expeditiously on Sunday to save a fine Queen, was found all right Tuesday and no cells started; she consequently had been allowed full liberty of the hive for 48 hours or more, yet to-day, she too, was found dead in front of the hive and a host of cells started. Is it possible they did not discover the "swap" we had made until after two days or more? We think we shall have to try them with a Queen cell to-morrow, yet we decidedly prefer the "Lamp Nursery, as there is no cutting of combs at all, and no loss on cells, be they built ever so closely.

The following just at hand shows we are not

alone in the field.

alone in the field.

I have succeeded in Introducing 27 out of 30 virgin Queens; three of them by eaging. Over 20 were introduced by letting them run into the hive at the entrance, inst as soon as practicable after hatching. Such as hatched at night were introduced in the morning. Two years ago, I introduced a fertile Queen by letting her crawl into the entrance after night, the next morning site was laying eggs; this is the only fertile Queen I ever introduced in that way. You know bees from different hives can be united much more readily after night than in day time.

after night than in day time.

T. G. McGAW, Monmouth, Ill. Aug. 10th-Onr 68 all have Queens, defend themselves fully from robbers, and everything goes finely. The four black stocks have accepted their unfertile Queens with one exception, and we gave them a Queen cell. Yesterday being Sunday we had leisure to watch our young Queens as they took their flight (we never open hives on the Sabbath unless in a case of positive necessity), and we were rejoiced by seeing several take wing with a vigor and ease that dispels any fears we may have had about so many cells in a hive giving all strong and vigorous Queens.

As the yield of honey has about ceased we have been feeding all colonies having laying Queens, from one half to a teacupful of syrup every evening about dusk. The way in which we do it is described on another page. We have decided not to commence ont-door feeding so long as no bees molest the groceries etc., as we have so many other bees now in the neigh-

borhood.

Aug. 14th—Is it not really provoking. Our big lot of young Queens are all safe in hives, and the greater part of them laying, yet we felt so sure that some of them would be lost, we started another comb for cells, to replace missing ones, and now we have once more large fine Queens, hatching and no place for for them. Our friends who have sent us their "dollars" for Imported daughters, doubtless think we might readily fill their orders, which

we would with alacrity, were these laying Queens. If some one will tell us how we can get them fertilized with the case and certainty, that we hatch them in that same "lamp nursery" we shall feel as if they had divulged to us the whereabouts of a small gold mine on our own premises. Three frames of brood and bees will it is true, convert them into laying Queens in 8 or 10 days, but really we dare not draw on our other colonies more this season. We might also sell those just commencing to lay and thus make a place for them, but we dare not even do that, for fear of marring our prospects of successful wintering. This morning we debated seriously what to do with three remarkably large and yellow ones just hatched, and finally made three more colonies for them, into which they crawled as if they owned it all, and "nary a bee" dissented by word or look.

Now we are going to give the result of our

experiments in regard to

BROOD OR EOGS FOR QUEEN REARING. Our friend Dean, always uses the latter, and advised us, if we wished good Queens, to get a new empty comb built perhaps half way down, and insert it one day in our Imported Queen's colony. When it was supplied plentifully with eggs, to remove and give to a Queenless stock having no other brood, thus obliging them to commence with eggs; such Queens hatching in sixteen instead of 10 days. Now

we did just this, two days after starting the lot

for the 58 cells, noting results carefully.

The large lot were started by the bees at different times, but the first of these hatched on the morning of the tenth day. Those hatching on the first two or three days, from large nice cells were large, and tolerably light for imported stock but some of the last to hatch were very black and small, though quick and active. We have saved several of the latter for experiment, but mind you, we do not propose to sell any of them. Another thing, in none of the large lot did we find any jelly remaining in the cells, but this could hardly be

expected with so many. About one dozen only, were started in the comb with eggs only, but they were swimming in jelly as soon as the larvæ were visible to the naked eye; a day or two after, more eells were started over pretty good sized larvæ, half grown perhaps, these have not hatched but the first constructed produced the yellowest Queens we have ever reared from the Imported stock, and they are larger limbed and strong. though not so quick and active as yet, as the small black ones mentioned heretofore. shall keep a record of conrse—we can do it easily with our Queen eards-of the longevity

of these respective Princesses.

Aug. 19th—The great loads of orange and yellow pollen that come in, in the fore part of the day, more especially the hives that contain the daughters of our Imported Queen, call forth admiration from every one, from Blue Eyes up, and as nothing prevents our peeping into the interior as well, we are happy to say the young Queens are faithfully doing their duty, even the dark inferior looking ones as well as the rest. Notwithstanding quite a severe drouth, under the stimulus of our liberal feeding, every egg seems to produce a perfect bee, in a way we don't remember seeing before.

#### OUR PRIMARY DEPARTMENT. O: First Principles in Bee-Keeping.

(De-igned especially for the veriest novices, and those who know nothing of bees whatever. Conduct-ed by a fellow Novice of several years experience replete with blunders, as well as with occasional

GREAT many commence bee-keeping but , too often end in a miserable failure in a year or two, and some times in a few mouths or perhaps needs even. Now as we can't tell how many of our readers may do this, and we partion arly desire that you should not fail, we shall endeavor to make our list of implements for a beginner as brief and simple as possible. We have for this the twofold reason that we wish to avoid all confusion, and also that as few "traps" as possible may be needed and consequently be lost should you abandon the eaterprise.

We rather prefer that you should commence with one hive, but if you can't be satisfied with so small a beginning, just double or treble the following amount.

Stock in trade absolutely necessary for a

start in bee-keeping

The state of the s	
One swarm of bees 5 to \$10.00 estimated	\$7.50
Simplicity hive	1.00
10 frames@6c	60
Quilt	
Transferring clasps, one package	
GLEANINGS IN BEE CULTURE.	

\$10.35

We would say it needs just about a \$10.00 bill to make a modest trial in the business.

"But," says some one of our readers, "you are continually calculating on our being able to judge for ourselves what we need, when the fact is we know nothing at all about it.

"The hive at \$1.00 has no bottom, and how do we know what is best to set it on; also, you have said nothing about paint, yet we think you have somewhere taught that they should never be exposed to the weather without painting. Still again, you say the Italians are much more docile than the blacks, if so why not give us the Italians at once, and then our increase, without any more or as much labor in fact, if we are to credit you 'bee folks,' will be Italiaus and all the more valuable. We certainly don't want to waste our time on inferior stock just to save a little additional expense in the beginning. Come now; tell us just what you would do, should some friend tell you to start him an Apiary, and if you thought one hive sufficient, all right, but it is to be all complete; the amount, to be cutrusted entirely to your own skill and judgment.

"Now remember your besetting sin, of economizing too closely in bee matters, but take all the money you want. If we mistake not you have decided not to give a beginner the Stand-

ard hive?"

"We certainly would not. Their first lesson should be increase of stocks rather, and after some experience lu that business they can decide for themselves whether they prefer to lift their ten frames into a long hive with capacity for twenty, or simply set on another story.

"Well, here is your heading on this paper now

put down the items and figures."

OUTFIT	FOR A	BEGINNER.	
. * 4 7. *			

OUTFIL FOR A DEGINALIS.
Simplicity hive\$1.00
One extra cover to serve as a bottom-board 50
Three good coats of Averill Chemical paint 50
Quilt
Ten combs, mostly worker, @75e each7.50
Italian Queen from Imported mother3.00
Four quarts of bees @\$1.004.00
GLEANINGS IN BEE CULTURE Vol 1 and 2, 1.50

\$18.35

"And is the above all?"

"All for the present.

"Of all the various articles mentioned on your price list would you add none?"

"None else until the article is really felt to be necessary by the owner."

"And the above is sufficient to build up a large Apiary without any additional purchase of bees?

"We think so. If all Queens are reared from the one mentioned there can be nothing poorer than half bloods, this will serve to give a new strain of blood and they are very good to handle usually, and are nearly equal to pure Italians as honey gatherers. When this Queen fails another tested one should be used. In an Apiary of 25 stocks or upwards an Imported Queen will, we think, be a profitable investment.

Those who have, or find it more convenient to use the box hive and common bees, we would refer to the articles on transferring in former number, see pages 33 and 64, Vol. 1st, and page 49, current volume.

It will require considerable care and skill to transfer a colony in mid-summer or fall, as well as to transplant the grape vine out of season, yet it can be done if you particularly de

sire it.

If you fail, it will probably be because you are careless and not neat and tidy about your work. The bees will assuredly pass readily into anything in the shape of a hive if it oecupies the precise position of the old one and contains some of their brood combs. Two principle difficulties beset beginners; First, danbing honey around so that robbers get "a going," secondly, losing the Queens. deft housewife can instruct you better how to avoid the former than we can, and in fact handling honey in almost any shape seems to be decidedly feminine work, but you should before hand give her a clean nice place, free from rubbish etc., in which to do the work. Bees are decidedly the neatest and most orderly class of all animated creation—bless our stars we meant to except every time and always, these same feminines-and if you wish them to thrive you must make their habitations (we mean the bees) agreeable to this trait. The Queen cannot get lost unless you leave some crevice or hole for her to crawl into, therefore we repeat our injunction, to bank all around the new hive with clean new saw-dust, pounded down hard, so that a bee may travel over it easily. Now if you make it a point not to kill a bee during the whole operation, you certainly will not kill the Queen.

Very likely they may in their fright, crawl and cluster hiseveral places about the new hive, instead of going in at the entrance, but this should occasion no uneasiness for if the majority pass in, the rest will all follow in due time, like a flock of sheep. We would locate the old hive while transferring, just back of the new one, but so close to it that the young becs will crawl readily to the entrance on hearing the hum of their companions. Use plenty of smoke in commencing, and you will find them as peaceable as flies when their old hive is removed from its stand.

## OUT-DOOR WINTERING IN THE "LONG HIVES,"

RIEND NOVICE: Several of my friends having asked my opinion in regard to mile asked my opinion in regard to wintering bees out of doors, in New Idea Hives, I will now en-leavor to answer them.

That they can sometimes be successfully wintered in that way, I have no doubt, as in certain seasons they seem to winter well under all circumstances, and in almost all conditions. I should hesitate about advising any one to try wintering many in that way antil the system has been more thoroughly tested. That some have been successful in wintering their bees in that way one or two winters, does not prove that they will always be equally so. The winter of 71 and 72, one of my friends wintered his 25 swarms on the summer stand and did not lose any, although that was one of those "blue" winters for bees. He tried the same way the next winter and lost about half of his stock, and the rest were so reduced as to yield but a small return the next season. Such may possibly be the luck of those who try out door wintering in New Idea hives.

half of his stock, and the rest were so reduced as to yield but a small return the next season. Such may possibly be the luck of those who try out door wintering in New Idea lives.

It has been asserted that strong stocks wintered out of doors in the "New Idea" Hive, consume uo more honey in proportion to the number of bees than they do in cellar or special depository. Such may be the case in some localities, but all my experience and observation, in regard to wintering strong stocks out of doors, have been different.

My father has kept his bees for over 25 years in a house built on purpose. It is boarded up outside with half inch, and celled up inside with matched inch lumber, with six inch dead alr space. It is divided into rooms two feet square and they are about seven feet high. The bees never swarm, become very strong during tho summer, and generally gather a large amount of honey, but owlng to their numbers, and exposure, it frequently takes all or nearly all they collect to carry them through the winter. He never gets as much honey from one of his swarms, as 1 do from the most of miue. If he could put them in some moderately warm place, it would no doubt save a large proportion of the honey they consume during the winter, but with the thermometer at from 20° to 30° helow zero, the ground freezing to a depth of 2 or 3 feet, two thleknesses of hoards and one air space are but a slight protection, and the bees unist consume honey or breeze. Owing to the wide air space, which they have to pass in going out, the bees do not fly out as soon as they do out of common swarms wintered in my bee house, whilst they consume at least two or three times as much honey. Now, I caunot see why New Idea Hives, with one fourth inch air space, will give any better protection than father's house, with six inch air space. The large number of bees will generate considerable heat, but they will produce no usore than they will but he house.

But while I would not advise any one to risk trying low winter many of their bees out of

more economically in-doors than ont, their size snound not keep them out. A horse takes up more room in a stable than a pig or chicken, yet fow object to stabiling him on that account. As the swarms are stronger, the temperature of the room in which they are wintered must be kept lower than it should for common stocks, and they must have plenty of upward

ventilatiou. That is all the difference required in the treatment in wintering, and the saving lu honey will more tina repay all the trouble, even if it takes two men to carry them in.

In the tall of '72 I had a number of two story hives on which I had used the extractor, and as the Queen had been breeding in both stories, the hives were full of bees almost to overflowing. On the approach of whiter I put them all in the lower story, gave them plenty of upward ventilation, put them in the house with the rest, and they wintered as well as any stocks in the Apiary. Last full when I put the bees from double width hives in single hives, I neglected to give them the proper amount of ventilation, and consequently more of the bees died, and they consumed more honey than the ordinary stocks, but hother respects they came through in good condition.

JAMES BOLIN, West Lodi, O.

### LETTER TO "NOVICE."

All Properties of the properties of the senson with 48 coloules, 31 of my own wintering (all Italians) and 17 of blacks bought this spring in box and Quinby hives lawe been more trouble, and less profit to me than the boxes. I have increased to about 70 colonies 1 guess, but shall cut down to 50 of my choicest Queens before going into winter quarters. I have taken, up to this date, I think some over 1500 lbs. of ext'd honey, and 500 lbs. of comb now off, and almost ready to come off. About 700 lbs. is from Fruit and Whitewood blossoms, and the rest all Basswood, and the leavlest and brightest 1 ever saw. This has been a poor season with us. The drouth has been so severe in this immediate vicinity, that corn 1s not 20 of a crop, and potatoes nearly as bad. We shall lose the Back wheat crop for honey at least, though it yields an abundance of pollen. I shall look for 2000 lbs. of honey yet from Bone Set and Golden rod. I mean ext'd of course, or 150 lbs. of comb if you think 1 had better "go for comb honey." I could have had all my 500 lbs. off now, if I had let the forty five hundred slip from me. I have used 22 of the "New Idea" one story hives, with from 20 to 30 combs about 10x13 and have come to the conclusion that combs and not Queens are the basis of an apiary, and that I prefer the two story hives, with from 20 to 30 combs about 10x13 and have come to the conclusion that combs and not Queens are the basis of an apiary, and that I prefer the two story hives for the extractor, as well as combiney in frames or boxes. I can get more honey from 30 combs and two or three Queens, than from 30 combs and one Queen. The three Queens don't have to be horse whipped three times a day, and live much longer than the "tong idea" Queen. I have the lumber drying for 30 double story hives, and have 32 "New Idea" hives for sale, at less than cost. Combs eost, well say from 50 ets. to \$1.00 each, and Queens 10 ets. each or less.

In answer to a query as to wherein the long hives were defective, we ree'd the following: RIEND NOVICE:—As you request, I will make

In answer to a query as to wherein the long hives were defective, we rec'd the following:

I have tried 22 "New Idea" hives in every way possible for the extractor, and find out that bees are bound to store the surplus 3, of every comb full, when strung out horizontally, but not so with two stories; they will then store in upper set of combs almost entirely.

J. H.

We have not observed the trouble mentioned above, but our experience has been limited to one hive only. We want further reports on the matter. Friend Whitson who writes the following, seems to have succeeded with them. It was written when acknowledging the re-ceipt of a double wall, four foot hive that we had made for him:

I have just got my bee house done, and filled the walls with dirt, but I would be glad to never put a bee in It if I knew they were as safe ont-doors. Something that will wait a week while we cut hay and then stand out-doors at 20° below zero, while we sit by the fire, is what we careless ones must have If we ever make it pay. Yes, I must tell you that my bees were so nearly played out last spring, that I only transferred one to the Standard; that one gave me 100 lbs. honey in 20 days and 20 lbs. since, and no one of the rest did more than half as much.

J. J. Whitrson, Valley Mills, Ind.

A. A. Rice of Seville this Co. has used one

A. A. Rice, of Seville, this Co., has used several of the 4 foot hives this season and says he gets three times as much honey from them as from the 10 frame hives.

## Gleanings in Bee Culture,

Published Monthly,

A. I. ROOT & CO., EDITORS AND PROPRIETORS

MEDINA, OHIO.

Terms: 75c. Per Annum. For Club Rates see Lost Page.

## MEDINA, SEPT. 1, 1874.

FRIEND NEVIN'S report of the Cutnip Field is crowded out.

lr is just fun to make colonles, rear Queens or build combs even during a drouth, If you can afford the sugar.

BEE WORLD is to-day (Ang. 28th.) at hand. Loss of first copy was probably caused by the burning of a large amount of mail matter.

Ir empty combs are worth 50c each, we really think they can be profitably made during warm weather in the fall by feeding; 'twould keep the bees in fine condition besides.

G. W. STINEBRING, Shreve, Wayne Co., O., Is black-mailing the Bee-keepers of his vicinity by threatening them with suits at law, unless they pay him \$5.00 for the right to use the American Hive. Hadn't they better take a Bee Journal?

THREE different persons it seems, have struck upon the idea of making frames of a single strip of wood, bent in shape by steaming the corners after having cut V shaped grooves, nearly through, where the bends come. We have not as yet been able, by this means, to make so firm a frame, nor one that will remain as perfectly square, but others may be more successful.

ANY one who doubts that Italians work on red clover should pass a small patch of it as we do now, half a dozen times daily. They have been busy on it about a week, and the colony belonging to the oldest daughter of our Imported, is building comb and slowly illing it with what appears to be clover honey. We removed their feeder a week ago as they seemed detersince mined to build combs under it. They have grown from 3 frames of bees and brood only, June 23d, 'tis now Aug, 29th.

A NEIGHBOR left some jars of honey at a grocery where they stood all winter side by side with our own. While the latter candied and oozed out around the top of the jars, so much so in fact that they had to be carried away finally; the former remained on the shelves clear and clean, all winter. When we applied to them for their valuable secret, the lady of the house laughingly said 'twas all because we didn't know how, and finally said theirs was put up precisely as canned fruit. The honey was heated nearly to the bollling point, by suspending it in a tin pail in a kettle of boiling water, then poured in the self-sealing jars and the lid screwed down instantly.

ALTHOUGH we shall pay all postage on GLEANINGs for 1875, the price will still remain 75c. To our friends who have so warmly aided in increasing its circulation, we tender sincere thanks. That the task of obtaining a club, for almost any periodical is no light one we are well aware, and we have many times thought 'twas easier earning our money by regular days' works, than by urging people to subscribe for something they were not sure they wanted. We are always willing and prefer to pay for such services, and where your time is limited you can aid us much by giving us the addresses of such of your friends as you think likely to engage in Bee Culture; we will send them sample copies with pleasure, and will also thank you for your aid in increasing our list.

#### STRAW HIVES,

A. I. Root & Co:—In answer to your inquiry about the straw hives described in my book, allow me to say that they are not equal to the old-lashioned, conciled shaped straw hive, and for movable frames, but little superioa to boards; not enough better to pay expense of making. A straw hive without frames, so that the combs are attached to the ontside walls is superior for wintering in the open air, as has been proved for centuries. Straw disposes of moisture readily. When combs are in frames and there are spaces between the edges and sides of hive, the bees do not feel the influence of ontside warmth readily, and suffer during protracted cold weather. The thick walls of our hive, have proved insuffient during protracted severe weather, for the same reason, when the colony was too small to generate warmth to comteract outside cold. Yet they are a great advantage in ordinary winters.

M. QUINBY, St. Johnsville, N. Y. Ang 19, 74

M. QUINDY, St. Johnsville, N. Y. Ang 19, 74
We intended also to inquire about straw
mats for the top of hives. Will Mr. Q. please
give us his experience with these?

## ABOUT OUR CLOVER SEED.

A. I. ROOT & Co.—Sits, As I have been a regular subscriber to Gleanings since its first start, I think it due to me to mention in your column on humbings, that last spring a year ago I sent money to Novice for Alsike Clover to sow about one acre, I received the seed and sowed it and lo and behold I it turned out to be all the old fishioned red clover. Please explain.

SAMUEL MUMA, Highspire, Pa. But we don't put folks in that department friend M until we have first submitted the

But we don't put folks in that department friend M, until we have first submitted the matter to them to determine whether the trouble was only a mistake they may regret more than any one else, or an intended frand. The seed you mention was raised by a neighbor, and was advertised as containing a small quantity of Timothy seed, but was offered at less than the market price. One other report mentions that it was a considerable part red clover. Now if you, and others will send in your bills for seed, trouble, etc., we will remit at once, and thank you for reminding us to use more care in buying. We will in future test our seed by sowing a sample in-doors.

#### OUR UNIVERSAL FEEDER.

That a daily accession to the stores of a colony is absolutely necessary to its fullest prosperity, we are so abundantly satisfied since the experiments of this season that we take a real pleasure in recommending the following simple device:

Make as many bags of stout coarse cotton cloth (such as is required for quilts) as you have hives; these bags should be about 10 inches long and 5 deep, and the upper edges around the mouth are to be tacked to the under side of a strip of half inch board,  $1\frac{3}{4}$  wide and as long as the top bay of the frames, or so long as not to allow bees to come up at the ends of the feeder.

To use it, remove one frame from the hive next the side where the lid opens, and push the edge of the quilt down to make room for the feeder as in the accompanying diagram:



The figure is supposed to represent the top

of a Simplicity hive made to contain ten Standard frames. A, A, represents the strip of wood that holds the cloth bag and the oblong hole cut through it is to allow of pouring in the syrup handily from a coffee-pot. C, C is the quilt with the portion that usualy covers the space occupied by the feeder A, A, turned down over the frame next the feeder, along the line D, D. If we wish to stimulate brood-rearing simply, raise the cover of each hive, as you pass along, enough to allow the nose of the coffe-pot to deliver a half a tea-cupful, or more safely into the bag, and close the hive and so on with the rest. If you wish to fill up rapidly for winter, pour in larger quantities of thicker syrup, and fill again when empty until they have the desired quantity. If you wish it all taken down quletly, feed only between sundown and dark; at any time in the middle of the day 'twill make what we call a "row" in in the apiary. In regard to speed we will only say that two of us, with each a coffee pot, can feed 60 colonies in five minutes. You will observe that if the quilt closes every erevice as it should always do, no bees can get in the 'Tis true there is danger (if fed way at all. rapidly) of comb building in the space not tilled by the bag, but this we avoid partially by moving all the brood combs to the opposite side of the hive; if they should have seven of the nine combs containing brood, you can interpose two that do not, between it and the feeder. To work rapidly you will need to have your tinsmith cut the strainer from the coffee pot that it may pour thick syrup easily. These feeders cost almost nothing, and when not in use, 100 or more can be packed away safely in a single Simplicity hive.

Now then if your bees are not fed up for winter when this reaches you, our advice would be to set about it at once, and give them enough. If you keep up brood-rearing briskly during this mouth, we think it can do no harm. Take the inside out of your extractor, and fill it with syrup, and you have it in a very convenient shape to replenish your coffee pot from the molasses gate. With this institution you can get beantiful combs built almost as rapidly as you can ask, if you are will-

ing to furnish the sugar.

We can only say in regard to boiling the syrup that there is an editorial disagreement in the matter; Noviec insisting that 'tis just as well to put a half barrel of sugar into the ext'r and pour on boiling water, and he backs up his position by a host of successful experiments; P. G. on the contrary stoutly insists that good syrup eaunot be made without boiling. As Novice is willing to admit that boiling "will do no hurt" those of our friends who agree with P. G. perhaps had better do so; at least if they will feel better satisfied about it. Should the bees gnaw holes in the feeder 'tis probably because your cloth is not sufficiently stont and heavy. We think nothing eau induce such rapid brood rearing, aye, or comb building either, as regular, daily feeding; a colony may have unlimited stores sealed up in the combs, yet If no houey is coming in either process will soon go on sluggishly. Should our bees survive the coming winter, we propose with the aid of this feeder to have some "tall" colonies next spring by the time fruit blossoms are out. Go make your feeders.

#### HONEY COLUMN.

s there no way by which honey producers can get the full value of their honey or what the purchasers propose to give, without risk from irresponsible parties, and also that the purchaser ment no risk from producers sending an article less in amount and inferior to sample at description? It should be done some way by deposit of price, where conditions are agreed upon. Many more would ship, and many more buy, if they left entirely safe from tricks.

R. WILKIN, Oscaioosa, lowaR. WILKIN, Oscaioosa, lowaAn arrangement can usually be made with R. R. Co's to deliver the honor and receive the

R. R. Co's to deliver the honey and receive the pay, but perhaps this would be only feasible

with large lats.

I rec'd the extractor—have taken out 900 lbs. From 10 colonles—works well.

J. R. PRATT, Manchester, N. Y.

Have now on hand 500 lbs. comb honey, and 135 gals, extracted white clover honey from 44 stocks of hybrids and blacks, Season not good.

THEOD. M. MOLTZ, West Fairvlew, Pa.

We have had a fair honey season here, but nothing extra. I commenced with 42 stocks; have increased to 75, and have changed Queens In 20 hives, tosing some time in each. Boxes were put on 15 hives; from 20 the honey was extracted; the remaining 7 (the weakest) were kept busy comb making. I have now Aug. 8th, perhaps 150 lbs. of box honey, and about 3800 lbs. or nearly two tons extracted, and plenty of empty boxes for sale cheap.

J. H. Townley, Tompkins, Mich. Aug. 8th, 1874.

P. S.—The best yield from any one hive was 60 lbs. In faur days, basswood honey, earried from one, to three miles.

J. H. T.

FRIEND NOVICE;—I fear you made a misske in quoting qt. fruit jars at 75 cts. for the retail price. If we go to the trouble of putting up our honey in jars, waiting for our pay etc. we surely should have 20 cts. or more per ib. for the brightest. I find that large sales of ext'd honey depend upon the efforts of the retailer more than any body clse, and lieler efforts, can be had at about 20 to 25 per ct. commission; 10 per ct. wout pinchase any more than "Yes, well, we will: we will put it in a conspicuous place" etc., etc. Say honey 3 bs. @ 20 cts., 60 cts.; jar, if a good one, first cost 15 cts., commission 20 per ct., and yon have 95 cts. Now take the other 5 cts. for bad debts, freights, candled honey, fire, and other casualites, labels etc. Your idea of putting honey on your nearest market is just my old way of doing it.

James Hedden.

A. I. ROOT & Co.:—I had 40 colonies Italian bees to begin the season with; have taken 1800 lbs. extracted honey, all Locust and White clover—a choice article—weighs 12 lbs. to the gallon. Am selling at home by the patient at 20c, per lb., in 2 lb. jurs 25c. per lb.

The drouth cut short our honey harvest more than one half. I started out with the expectation of getting 4000 lbs. We have no Basswood and get nothing after 20th of July, and this year nothing after 25th of June. My nelghbors who worked their bees for box honey have the pleasure of looking into empty boxes with perhaps a few pieces of comb started in one corner. I had one box hive that I intended to build box honey, but when the honey was being scaled to the bottom board, brood, comit and all, it was more than I could stand, so I "busted" the side off, took out the combs, extracted like honey and fitted them into frames. After honey failed I "hustled" all my old Queens off and now have all large healthy vigorous young Queens to "run the shebang". I never lose any bees to signify in whitersville, O. Aug. 7th '7i J. A. Buchanan, Wintersville, O. Aug. 7th '7i

A i Root & Co:—Gleanings comes to hand promptly every time, each one filled with good things, just the kind of information us beginners are in need of. Still it is not very gratifying to sellish human nature to read of your immense yield of Basswood houey during July, when our bees are not gathering enough outside of the sugared floor to keep them, yet we cannot complain, the yield of white clover having exceeded my expectation. The hives i extracted yielding on an average very nearly 100 lbs. I run three hives for box honey; it is not worth while to weigh as I don't care to know how small the yield is. But I do know some of the extracted ones gave me 150 lbs. each; one gave 70 in one week. I may get

more surplus yet as we generally have a good yield of fall honey, the country being yellow with goldenrod after the middle of Ang. This is only my third year at Bee-keeping, and all I know I have learned by reading and observation, and no one to go to for information, for movable comb hives are as searce as "chicken's teeth." I have about 1100 lbs. of Whito clover and 450 of Fruit blossom honey, and if I can sell this readily I will go deeper still.

C. II. RUE, Manalapan, N. J. Aug. 6th '74.

No.	May	JUN !	Jea	Joa ,	Jul ;	Jul	Jul !	Jul	! Aug	Total
hive	30	1.11	21	27	3 1	9	18 1	25	1.4	cach.
			-		1		_			lbs.
1 [	75	3 %	20 X	31%	35 4	53	52 1/4	73	2736	301
2	736	236	12.5	26 37	37	3636	34		24.36	242
	6.5		18%		43 %		31	90	27	
4	0	2	16	23 3	19.3	48	38	65	18	229
5	6	4	19		45 %		35	60	13	270%
TotT	27	1736	85 %	158 %	180	225	190%	348	110	1342
cach	Sm	wine	1 6	love	e and	. 1	Bas	0.3350	hod	
xtug		non	,	Raspl	Langer		13415		Ott.	
day.		ine,	4 750	ld vo	e ble	0.000	0.534	10	1	
day.   Average yield per hive 268 2-5 lbs.										

Led to Receive the Receive the

Thanks for your very complete report. fear we shal! become converged to 32 frame hives, but from Quinby's report are we not at liberty to consider a two story arrangement of them, at least equally as good, as a horizontal? Is it not possible that the approaching hive is to be double width, and two story, whatever may be the frame? can no one furnish a report from a similar hive composed of 40 Langstroth frames? Kidder frame is 14 by 12 we think.

Be enreful of wire cloth on division boards,

see page 74 July No.

FRIEND NOVICE:—I fear you will often have cause to be disappointed by my mistakes and short-romings, since to err, you know, is human. But were you not "putting it on pretty thick" in expecting me to report loads, to the hive, which is, perhaps, nearly double the average amount reported in GLEANINGS for July?

We have less white clover this season than I have ever known, as it was nearly all killed last winter, and the same may be said of red, in this neighborhood. Two miles north or here there is considerable red clover and nearly all the clover honey we have came from there. However I will do the best I can, and if

from there. However I will do the best I can, and if I fall to reach the standard yon have set up for me, please don't, "view me with a critic's eye etc."

But Is extracted honey really so much more profitable than box, in all places, and under all circumstances? With your permission I will give a little of my experience. Three years ago I had a pretty severe attack of "extractor on the brain" and determined to supervise the patives by the amount of honey. I would

attack of "extractor on the brain" and determined to surprise the natives, by the amount of honey I would obtain from some of my bees. So in the spring I selected a number of my very best stocks, and as soon as they needed more room I put on the upper story, filled with empty combs, and as fast as they filled their hives with honey I extracted it.

Now for the result. The most honey I obtained from any one of them was 168 lbs, while several swarms that I let "fool away their time on box honey" yielded over 120 lbs, each; and from one stock that swarmed twice, and the swarms that came from it, 1 obtained 216 lbs, of box honey. I sold the extracted at 18, and the box at 25 cts, per lb. The account would stand about as follows:

216 lbs, box honey@25e. \$51.00 l68 " extracted "18. 30.24

Difference in favor of box honey........\$23.76 or, adding value of the two swarms, \$15.00 each...30.00

Now, in view of the above, I hope I may be pardon-

ed If I am somewhat skeptleal in regard to the advantages of extracted over box honey. Where the yield of honey comes with a rush, for instance, where it is nearty all basswood, I have no doubt the use of the extractor will prove most profitable, but where the extractor will prove most profitable, but where the extractor will prove most profitable, but where the extractor will yield most profit does with us, I have, as yet, seen nothing to prove that the use of the extractor will yield most profit here, especially when we take in consideration the difference in the demand. Dealers come a distance of ten or twelve miles and take away the box honey, but the extracted I have to carry to them, and then find it dull sale. I believe in building up a home market, hence, try to furnish what there is a call for.

James Bolen, West Lodi, O. Ang. 12th, 1874.

There, friend B., we had suspected you of

There, friend B., we had suspected you of heresy before; however, we are content to let you work out your own reformation as the rest of the bee-keeping world are doing rapidly.

I must say a word further lu regard to what was called errors in judgement. I had sald in circular that we had extracted 361 lbs in one sea-son, from one blve, and over 200 lbs box honey; and son, from one hive, and over 200 lbs box honey; and intimated that even this amount might be exceeded. Part of such result was attributed to glying abundant room in the hive. Capt, Hetherington, Cherry Valley, N. Y., will reach this amount of box honey from a hive—f will venture to say. From 100 hives—this scason. Mr. P. Elwood, Starkville, Herkimer Co., N.Y., had one stock has spring—In Quinby hive—the Queen of the Family came from you. Began with eight combs. As the center ones became filled with brood, they were m oved loward the outside, and the empty ones put in their place, till sixteen were full, on the bottom board; and then another course was placed directly over them, and the bees had increased to occupy the whole. No brood had been taken from them to assist others; neither did they have assistance from assist others; neither did they have assistance from others. He commenced extracting before they had accumulated much, and kept the date of each time, and amount obtained—will give them at another time. and another the product of two days-57% lbs. In the aggregate, 502 lbs. I visited him Aug. 11th. Before that day he had taken 440 lbs. This was so extraordinary that I expressed a wish to see how much was accumulated since the last was taken. To accommodate me and some others present, he let us witness his taking 62 lbs. All up to that time was white honey, Buckwheat was just beginning to yleld. What it will amount to is yet to be seen. The evon is what it will amount to is yet to be seen. The evon is promising, and usually amounts to half or two thirds as much as the white honey. It seems safe to estimate over 800 lbs. that this one hive will give in one season. The parts relating to what he already has, can be substantiated beyond dispute. When this amount can be obtained from any hive except one on this principle, I would like to know it; your readers would also.

M. OUNNEY St. Loberthie, V. W.

M. QUINBY, St Johnsville, N. Y. Aug. 21st, 1874.

Lest it might appear we had a position to defend, we will submit the question to our readers whether this great result is to be attributed to the hive, locality, their owner, or the queen. We are much obliged indeed to Mr. Q. for the reports, but we really should have liked with them, a report also of the rest of the Apiary. Capt. Hetherington has, or had,near 1000 colonies, and Mr. Elwood, as nearly as we can determine, about 200; what the rest did, and the general average, it seems to us should be given with the above to prevent mistaken impressions. Reports have been given in Gleanings nearly if not quite equal to the above, and with a diversity of hives. Is it not much due to plenty of empty combs and an intelligent—but stay; if the Queen came from us 'twas certainly a "dollar Queen," and Gallup, and some others, say that "dollar Queens' --- Why can we not rear such Queens every time, and get such crops of honey from every hive? Truly perfection belongs not to bee-keepers, any more than to mankind generally. We gave directions for making a mammoth hive similar to the one described by Mr. Q., on page 37, Vol. 1.

## Heads of Grain, FROM DIFFERENT FIELDS.

RIEND NOVICE;—Mr. Martin is no donbt right in thinking I do not deserve pour

in thinking I do not deserve much credit for whetering my bees without loss, as there are plenty of others that have done the same thing, and he may be right in thinking I may yet find my "Waterloo". Of one thing I am pretty certain, however, and that is, when it comes, if it ever does so, it will not find me with my arms folded, trusting to luck for success; but tike Napoleon's old guarat, in the field ready for the light. But as I am not much inclined to cross bridges before I come to them, i will try not to borrow any trouble from that source at present.

Now to show friend Murtin that it is not altogether fair saffing for bee-keepers in this section, I will mention that a neighbor living within 80 rods of me pair his bees in the ceilar last fall and disturbed them all to death before spring. Another put his faces warms in a coid out-building and only had one left the first o. May and they were not worth 25 ets. Of two other neighbors, one living one mice cast and the other fire same distance were, one had one swarm out of five, and the other three out of ten icit. The above are the nearest neighbors i have that keep bees, and their luck is a pretty tair sample of the way bee-keepers have fared for some years past, where they were not properly cared to:

I never wintered more finan one swarm on the summer stand. That was the first swarm Lovand and

ers have fared for some years [ ast, where they were not properly cared for.

I never wintered more than one swam on the summer stand. That was the first swarm I owned, and the amount of honey they consumed, and the unmber of bees that perished during the winter, determined me to try some other mode of winteting.

At the time, I was engaged in supplying the neighbors with what dry goods, notions etc. they needed, and when I talked of putting my bees in the cellar, many were the smiles exchanged at my expense, I might know how to sell goods, but bee-keeping was evidently out of my line of business. Well, the bees were put in the cellar, and in spite of all prophecies to the contrary, came out all right, and did the same each succeeding winter, until failing health compelled me to seek some employment affording more out-door exercise. A natural liking for bees, and the bellef that fiere was money in them, indicated plainly enough what that employment should be.

On moving here, I had no cellar suitable for winters, bees in, itherefore built a house tor that purpose, which has more than met my expectations so far, as any losses in wintering have amounted to almost nothing, whilst bees kept on the oid hap-hazard plan are rapidly disappearing.

ay losses in wintering have amounted to almost nothing, whilst bees kept on the old hap-fiazard plan are rapidly alsappearing.

Now in regard to bees sometimes wintering well without any kind of earc,—is it not generally owing to their being, by chanee, in about the same condition, so far as bees, stores and empty combs are concerned, as a careful Apiarlan would put them in, before winter? I have thought such was the case. It is seldom such chance work pays very long, for earlessness in any business is sure to bring its reward, sooner or fater, and bee-keeping forms no exception to the raile. Carelessness is no safeguard against the "many varying elreumstanees" mentioned by Mr. Martin, and which I cannot help thinking it the duty of the bee-keep to guard against. For instance; most of the bees find thed hist winter and spring were lost by the bees leaving their fives in quest or polleu or honey when the weather was too cold for them to be out, and as a consequence the old inces died before young ones were reared to take their place, thus leaving the filves bee-less, or nearly so. Now ! failnk there is a remedy for this kind of loss. If I found the old bees were dying at a rate that threatened the safety of my lees, i should put them in the house ngain, feed them to set flieu to breeding, and keep them in the house until they could be put out with safety.

After bees have been out and find a purifying flight, they may be keef in-doors for some time with safety, and set to breeding by feeding. I have to see the first swarm yet that cannot be set to breeding, if put in a varm place, and fed.

It conclusion; Mr. Editor, just sny to your farmer riends, who laugh at "Scientille" bee culture, that

warm prace, and fed.

In conclusion; Mr. Editor, just say to your farmer rhends, who laugh at "Scientific" bee culture, that uclider the extractor, sugar-syrup, or the Italians are the cause of the loss of so many bees; as I have all the above named "varying circumstances" and they have failed to kit mine.

JAMES BOLIN, West Lodi, O. July 16th, 1874.

I have observed that bees will store surplus honey in small filves more readily on a moderate supply, than they will in large hives, but the use of the ex-tractor greatly modifies the rule and to my mind

nearly annihilates the necessliy of diversity in frames and lives. I am only making a start in bee-keeping for myself, but have handled, and can handle bees for others. I did what I filink most others should do, i served an apprenieeship in a large apinry, and if some of your correspondents would submit to the same kind of discipline they would not need to ask so many stily questions and lei everybody know it. In a lormer number of Gleanings a subscriber wanted to know what to do,—wanted to examine his bees when the, weather was too cold—Novice "did not know;" why Novice! I carry them into a moderately warm room—do it in any kind of weather. If my bees don't sing "Nover mind the weather," I do.

Geo. W.Horner, Dubuque, fa.

Now friend H. if we all followed your advice there wouldn't be any more novices. A letter is now before us from a lady, who has just been through her hives with the extractor for the first time, asking how soon she can extract them again; of course we replied pleasantly, "as soon as they are full again," we hope our readers will not hesitate to ask anything they may feel disposed. We have tried taking the bees in doors to examine, but they had a way of getting around loose on the floor, and after somebody had stepped on them they were "all spiled" or as Blue Eyes would express it, "broke, broke, broke, real hard!"

FRIEND NOVICE:—I see a good deal said about "Quinby's new Smoker" as though he were the inventor of it. I have never seen it, but from description should think it the same as one Mr. Davis of Clemwater, Wright Co., Minn., tried to self me seven years ago. It was made of tin, perhaps 2 inches in diameter and 8 inches (more or less) in length, with a tolded seam like those in tin pans (as the hent metted those lastened only with solder) one end terminated in a small inte, to the other end was attached a small hellows, which could be readily removed when wishing, to fill it. Who was the inventor I know not, he made them originally to kill liee on calves or ticks on sheep, with tobacco smoke, but when he went to keeping bees he nsed one of them to smoke his bees.

Have taken 55 its, of honey from 4 of my 5 swanns, all of which were weak he spring; will not extract from brood chamber this year and see if line will not whater better on early gathered honey. Wintered bees successfully when I ext'd only from 10p story.

S. ROWELL, Faribanlt, Minn. Aug. 2nd. 1874.

Thanks for the item. We see B. K. M. also mentions that combining the smoker with the bellows is not new. However, the most ingenious part of Quinby's is perhaps the arrangement of valves that open when it is stood upright, but close when laid down; so far at least, we believe Mr. Q. is entitled to credit.

We really hope leaving the honey near the brood may prove an advantage, but if this is all the trouble why have box hives fared so badly? We certainly should be sure that the bees have an abundance of well sealed ripened honey for winter, and where fall stores abound your plan will probably be best, say, after the 1st of August at least. We never extract after that time here.

Should not a fertile Queen begin to lay eggs immediately, on being placed with and received by a swarm of nees, after being enged with about a dozen workers 4 or 5 days?

N. E. Phentice, Castalia, O.

She should lay within 24 hours at least, but before deciding, we would give them a good feed; then if she would not lay we would say "off goes her head."

You should have said in starting a colony with so few bees to do the work, "try to do as much of it as you can yourself." Keep them warm, light their enemies, give them plenty of both ioney and pollen. I built up a colony so last year, and two this summer. They consume an enormous quantity of pollen and should be allowed to thy every evening. One of these I found had a great many dead; I noticed too that the

pollen had disappeared and gave more, and the mortality ceased immediately. These last I kept closed several days dreading robbers, but opened them all in the evening and scept off the bottom-board. The Sago tree commenced blooming about the 5th of June and bloomed freely about three weeks and still has some straggling blossoms left. Did your seed germinate? Have you any plants living now? I have never heard whether any one has succeeded in making them grow. ANNA SAUNDERS, Woodville, Miss. ANNA SAUNDERS, Woodville, Miss. them grow.

Onr seed, we are very sorry to say, did not germinate—not a seed. Perhaps we did not put it in a good place; in fact it is—done up in the original paper, in a drawer at our elbow.

We beg your pardon sincerely Miss Anna, and will plant some within the next hour.

Can't say for the other folks.

In regard to the small colonies; we really doubt if they pay as a general thing. If possible we prefer to give them bees, and brood enough, that they may keep away robbers and gather pollen, almost immediately.

DEAR NOVICE:-Those Queens arrived so safely, DEAR NOVICE:—Those Queens arrived so sately, and were so smart and lively that I must have another right away. I exchanged Queens with Mr. McMurdo, as mine was delayed. He said he would let me have his and take mine when it came; I felt almost sorry after I saw the one sent me, as it was the largest and lighter colored, those sent McMurdo being pretty dark. Hurrah for sending Queens by mall, and for those in Queen cayes.

those tin Queen cages.
LA MICHENER, Low Banks, Ontario, Canada. We have perhaps omitted to state that our imported daughters are dark; indeed, some of them just before fertilization can hardly be distinguished from common Queens, but after they are laying, they become much lighter nuless it be the extremity of the body which remains dark, or as Dadant expresses it, of a dark leather color. The dark Queen mentioned above was daughter of an Imported Queen.

1. Is the statement true that Italians work on the red clover? We have no Buck-wheat for a fall crop, but the Astor is abundant, and I suppose as good.

2. Do you prefer hives one, or two stories?
3. Is it not better to give the same room interally, than perpendicularly? That is, widen the hive till it will hold twenty frames in one story, and contract by close fitting boards in winter, to ten.
4. How many frames (Langstroth) are best for a full colony of Italian bees?
5. Is it best to keep the honey well extracted during.

4. How many traines transferred, a colony of Italian bees?
5. Is It best to keep the honey well extracted during the entire season? I have done that in some of my stocks, and they have repred much more brood than those where the combs have not been kept empty. Some advise me to keep the combs empty all through the season, even if I have to put the honey back in the season.

fall.

I see by the copy of GLEANINGS you were kind enough to send me, that you make it your business to answer all the questions your correspondents ask you. That is the only excuse I have to offer for this long list of questions—which I hope neitner offend or weary you. I am going to take your GLEANINGS, and I hope that will keep me posted in future. I am a "Country Doctor," and have just time enough from my professional cares, to write an occasional imperfluent letter, and attend to a few stands of bees. I made mynagself a honey extractor with a 12 gal. lard stand, tin, and the eastings of a nation clump. and the castings of a patent churn.

J. E. FRY, Lynnville, Tenn.

Most certainly they do, but not at all While we invariably find them on it working briskly in June, we seldom see them take any notice of it in the fall. Whenever the common bees are busy on white clover we rarely fail to find the Italians busy on the red.

2, and 3. We really cannot give a full, decided preference for either form, and opinions differ widely as you may see by reports. Each form has its advantages and disadvantages.

4. About twenty during the honey season, and ten during the winter.

5. By all means, we should say, whenever it is coming in briskly.

We should be ill natured indeed, were we to refuse to answer any question coming from a "country doctor" or minister either for that matter. If they make it their business to serve mankind all their lives uncomplainingly, we certainly should be willing to help them whenever we can.

Both of my Queens—one from Blakeslee and one from Dean, arrived safely and in flue order. I notified both senders Instanter, and send a card to thank you and to say that I have been gulle successful in hiroducing them, particulars bye and bye. J. McMURDO.

The "dollar Queen" business seems now to have a firm basis, but since our note last month, saying we were nearly caught up with orders, so many have come in that we fear some may have to lay over until next season. In such eases please state explicitly whether you wish the money returned, or to have them placed first on the list next season.

G. Brigs, of New Sharon, this Co., had considerable basswood honey collected this season, although living three miles from any basswood timber. R. Wilkin, Oscaloosa, Iowa.

After our main crop is over, our bees go to the low lands near the river, where it blossoms later, about a mile and a half perhaps; they still store considerable, but their wings soon get very ragged, and many doubtless perish from flying so great a distance. Enough may be brought three miles perhaps to give the honey a plain basswood flavor but we should hardly think it carried profitably so far.

The quilts stick rather tightly to the frames, so as to raise some when it is taken off. Is there any remedy? Have been thinking that if something could be used not touching the frames at all, it would be better. Would it not be a good plan to have the covers on hives so fixed that the sin could shine on the quilts or straw mats; that is, in spring and fall, or in the summer time when not too hot.

PEUER MOYER, Sharpsville, Pa.

We find little trouble if the quilt be taken by one edge near the end of the frames, and "peeled" off. This will not disturb the frames, nor the bees seriously. If the quilt is kept up, we do not get the advantage of closed top frames, that we do when it comes down close We think, (see Problem 8, Vol. 1) to them. letting the sun shine on the quilt in spring would certainly be an advantage if it did not induce flying in unseasonable weather; nothing but eareful experiment can tell how it will do.

FRIEND NOVICE:—Would it interest you, or your readers, to know how the bee business is prospering "away down East," among the "Bine noses." Well, almost universally, it is the old style—box lives—plenty of swarms—no honey. Thanks to Gleanings, there is at least one exception. Convinced by your writings that there was money in the business of beekeeping. I adopted "Novlee" as my model, and went ahead. Though our acquaintance extends but little over a year, yet the wind-mill, Novice's extractor, if Simplicity hives, the hexagonal aplary etc., all are here.

Last spring I began with 43 stocks-16, in old mova-Last spring 1 began with 43 stocks—16, in old movable comb hives, 27 in boxes which I purchased for about \$2.50 each. All were safely wintered, and by judicious feeding were in good condition when the honey harvest began. The spring, and first part of summer were very cold and wet. No honey was obtained from fruit blossoms, and I was obliged to feed my bees on the 4th of July to prevent starvation. My 27 box hives were transferred, but I could only get enough good comb out of them on an average to fill four of my Quinby frames. This left a vacancy of six frames. The honey harvest began the 6th of July. To date, I have 2500 lbs. of superior clover honey, my hives are all filled with inco worker comb and 8 are double hives. I have only increased my stocks to 46, but with the increase of comb, and condition of bees, I consider my stocks at least worth \$100.00 more than in the spring. My honey, bottled and labeled, is selting rapidly at the rate of 28 cts. per 1b. clear of bottles; at this rate my honey will turn me \$700.00 which with the \$100.00 above makes me \$800.00 clear profit from 43 stands.

from 43 stands.

My bees are rapidly filling up for winter on Buck-wheat honey. The old fogy bee-keepers pronounce this the worst season they have ever known, they have little or no honey. I think myself that we seldom have poorer. The result of my summer's experiment has astonished every one, nyself included.

That Novice may abundantly share the prosperity and happiness he is causing hundreds to enjoy, is the sincere wish of his British consin.

Mt. Hanley, N. S., Aug. 12th, 1874.

More than once have we been tempted to feel that our pay was but meager for the number of hours we labor daily for the good of Bee Culture, but friend M., you and others remind us that our recompense is ample; perhaps far greater than we deserve. If it is not all in dollars and cents it in something far better, the consciousness of having earned the good will of our fellow laborers. Will our bee-keeping British cousins bear in mind that although we may never have the pleasure of giving them such a grasp of the hand as we might wish, yet a warm place in our heart will always be reserved for them.

Supposing I succeed in getting Queens from those eggs you are going to send me, how many bands will they have? or at least their progeny? My drones are all black of course. How many times will they have to be crossed till there is no trace of the Italian left. Novlee why don't you tell us something about Egyptian bees sometime in GLEANINGS?

ILA MICHENER, Low Banks, Ontarlo, Can, P. S.—There is something I wanted to tell you and nearly forgot. I have ten Queen cells nearly ready to cap from eggs from one of Mr. McMurdo's Queens.

If the dollar Queens are reared from imported mothers, we think none of the bees will ever show less than two yellow bands; and these two banded bees are very industrious and quite pleasant to handle. However, if Queens are reared from this brood that produces the two banded bees, they are very nearly black, and when mated with common drones, their progeny is about us disagreeable as bees can well be, and we can blame no one for vehemently denouncing such hybrids. Friend Muth of Cincinnati, has Egyptian bees. Will he please tell us more about them.

As our honey sells well at good prices, we have de-termined to feed sugar to our bees this fall. How many barrets should you get to feed say 70 colonles? JAMES HEDDON, Downglac, Mich.

Much depends on the strength of your colonles. We have uever found any ground at all for the assertion that two weak colonies would consume less when united than either of them separately, but on the contrary find the amount of food consumed as with all other stock, depends upon the number to be fed. We should estimate 25 lbs. of sngar, enough for the strongest colony from Sept. until May; 20 lbs., enough for all ordinary stocks, and where the bees only cover three or four combs on a frosty morning, perhaps 10 lbs. would suffice. Never err by giving too little, nuless you expect to feed early in the spring, and on the other hand we should wish to give only about enough on the average to last until honey comes in next season, that it may not be in the way in the combs. Without seeing your

70 stocks we might guess that you would need six or seven barrels of sugar, if all their stores were removed in Sept.

These remarks refer to in-door wintering; we have had too little experience of late years to decide how much more will be required for out-door wintering, but perhaps a half more would not be far out of the way.

It is strange but I never can get a Queen that will occupy more than 5 or 6 frames with brood, and not nearly all the comb in frames at that, some at top and sides being filled with honey and pollen. Am inclined to disbelieve reports of Queens filling so many frames as some say they do. I have Queens from many breeders.

J. A. Buchlanan, Wintersylle, O.

many breeders.

J. A. Buchanan, Wintersylle

We partially agree with you friend B. Queen that occupies 7 L. frames we think very fair; 'tis true that by mixing the combs up frequently, we may get some brood in 20 combs, or even more. Is this good economy? Those who are in doubt should make the experiment, but please try it on a few hives first.

MR, ROOT:—I have thickened my syrup with starch for more than 12 years to feed bees. I have not perceived any bad effect from it, if some one would feed a hive that way this full and notice how it wintered. I would like to hear the result. I could not well feed with and without, myself. J. WINFIELD, Hubbard, O.

Starch and sugar are regarded in Chemistry as nearly identical, in fact starch is converted into sugar by a chemical process with such facility that the price of the two always remains about the same, and as the starch in our food is quickly changed to sugar in the process of digestion, may it not be the same with the bees? Still further is it not a fact that when you feed starch with the sugar, in form of a syrup, you find only the latter deposited in the cells. We are inclined to think that even if starch were taken with avidity, it would not prove a substitute for nollen nor even for Rye and Oat meal.

and Oat meal.

I send for some fresh eggs laid during the night, or within 24 hours before sending. These eggs will count with me. After they are grubs or larve one or two days old, I transfer them to Queen cells already built in (paculess Nuclei, where they are brought up Queens, and they will be beauties. I have two such now on hand, one laying, the other younger, besides one in the larve state. I wish these eggs to be from your imported Queen.

JOHN L. DAVIS, Delbi, Mich. Aug. 7th, 1874.

'Tis our opinion friend D. has hit on some thing really yadupble. We at once removed

thing really valuable. We at once removed the larvæ from three queen cells in our own Apiary, and introduced others much younger from the imported stock. They were all fed and taken care of; we use a quill toothpick for the operation; push it under the just hatched worker larvie and remove it food and all from the worker cell, and carefully put it in the Queen cell, having previously "paked" out the original occupant. If done earefully we have no doubt of complete success, and a stubborn colony can be allowed to go on with as many of their own Queen cells as they choose to build. We sent two pieces to friend D., one containing eggs as he requested and the other larvæ so small as to be just visible. He writes:

larvæ so small as to be just visible. He writes:
The boxes were on hand last night the 13th last, and
this 14th, 4 P. M. there are 15 Queens started from the
comb with larvæ; it came all right, the other came
with the same and but 35 of the eggs were jarred ont
of the cells. Among the Queen cells spoken of above,
4 are in incipient natural Queen cells into which 1
transferred the larvæ this morning, the bees seemed
pleased and are already feeding them jelly. I cut the
plece containing larvæ into three pieces and put into
three hives and they have started 4, 5, and 6 cells respectively already. Thanks for promptness.

Please inform me, 1st: Are Queens reared in a two frame nucleus as good as those reared in an eight frame colony? My bees in nucleus tore down the cell i gave them and are building one for themselves, shall

i gave them and are building one for themselves, shall I allow them to proceed?

2n L. In making a nucleus, I by mistake, got the old Queen on one of the frames, which error was not discovered till two days after. In that case could I put her back in her own live without endangering her life? or woold you advise changing places of the nucleus and the old hive?

GRO. G. SCOTT, Dubuque, lowa, July 15th, 1874.

1st. So far as vigor is concerned, we would let them use the cell if we were sure it contained an abundance of royal jelly, which seldom is the case unless the young colony have become fully organized and are bringing both honey and posten industriously. "Tis our opinion a pint of bees, in very warm weather, may do this as well as a larger number, but they would probably be unable to supply more than one or two cells, and a larger number of bees

would generally be preferable.

2ul. Try and see if they will receive their old Queen of course, before running any risk. If they are gathering honey there will seldom be any trouble, but you can easily remove a frame and place her on it in the midst of the bees, having some smoke handy, in case she should be in danger. We introduce Queens newly hatched in this way, with scarcely ever a failure. If the honey yield has stopped it may be necessary to cage your old Queen before releasing her, after two days or more absence, but we should try her first on the plan given. Queens not valued highly we often introduce in the manner given without caging, and even let them run in at the entrance without opening the hive; at certain seasons all will go well every time, but at others every Queen, seemingly, will be destroyed. They can be released on a single comb without danger if you are prompt and fearless in rescuing them when attacked.

FRIEND NOVICE:—I had an extractor made on your plan, and it works like a charm. I am a sort of a genius but I have been trying to study out the principle of an extractor the last year or so and could get no idea of how to get it to work till I got lirst volume of GLEANINGS. I then went to my tin-smith but had much trouble to get him to understand it. However we made it work. I think I can beat you on prices; I had it made for frames HxII/ luch, with sloping hottom, malasses give exceuted for \$1.1

ever we made it work. I think I can beat you on prices; I had it made for frames [hr.11½] Inch, with sloping hottom, molasses gate excepted, for \$1.15. Bees are not doing very much here this summer, especially blacks. The Italians are still doing something. I have two that swarmed and have extracted 21 lbs. of honey from them, the litaks be she them have ueither swarmed nor made any honey more than they consumed.

21 lbs. of honey from them, the marks meshe them have neither swarmed nor made any honey more than they consumed.

I am rearing a kew dollar Queeus this summer. I can't raise them list chough, but II my life is sparred till next spring I will breed on a larger scale. I should like to have your advice as to how to proceed. Would it be best to have my nuclei formed of say 2 or 3 standard frames, or have little boxes with four frames, of inches square? I am using the latter now.

I intend to my bees to rear Queens with. I can buy them in box lives with drawers of from 12 to 15 lbs, of box honey for \$5.00. Now, if I use the standard frame, would it be adelsande to transfer them in September, extract the honey all from the body of the live and extracted for 18 cts., so they would not cost more than \$2.00 per live or hardly that. Or would it be a better plan to let them remain until spring and pay \$5.00 for them without the box honey, and be sure of not losing them this winter? though there has not been much tronble in wintering in this section of the country. trouble in wintering in this section of the country.

AARON T. WEIDNER, Bigler, Pa.

Small hives, and small frames have been almost universally abandoned. You will find, we think that using the same frames used in

your hives is much safest in the long run, and if not less than three combs of brood be used to start a nucleus, they will protect themselves from robbers without shutting them in at all. We think we would use nothing smaller than a hive capable of containing ten combs; these ean then be built up to a good colony with little trouble after they get a laying Queen.
If the honey can all be extracted in August,

or early in Sept., so as to feed the syrup and get everything in good shape during warm weather, it might do; but transferring in the fall, where the combs are filled with honey, is risky business even for an expert. The safer way would be to wait until spring we think, especially if bees winter well in your locality

on natural stores.

Well, Mr. GLEANINGS, will you please tell us next month through the "wind-mill print" how Novice usanages to separate his honey from the sugar-syrup that gets into his hives in various ways. We would like some times to feed a little syrup but don't want it with our honey. Some say to us when we offer extracted honey, that it is syrup. We tell them no, it is the pure honey and tell the truth too.

A. J. Hooven, Plymouth, Pa.

Just exactly. In the spring we contrive to have all the sugar-syrup used up in rearing brood, before honey comes in, and if some heavy combs still remain we put them into nucleus hives to be used by bees not old enough to gather honey. If placed next to a brood

comb it will be used up very fast.

The present season we found it impossible to use it where the bees had died, without re-serving it until the honey yield had passed, and it is now being worked up to excellent advantage by upwards of 40 young colonies containing Queens just commencing to lay. Such combs filled heavy with scaled syrup, work in beautifully in this way. When we were extracting it by chance any comb was brought in containing sealed honey looking other than as if it had been freshly sealed, it was tested by tasting and if any trace of sugar was perceptible, 'twas condemned and reserved for brood-rearing. Should fall honey come in while feeding, we really don't know what is to be done unless empty combs be inserted temporarily to receive the new stores, extracting from them only, and leaving the brood combs untouched at this season.

My bees have not nor can I make them do much. My bees have not not can thake them do much, there seems to be no hone; in the clover, and we have no linn; buck-wheat is just commenting to bloom. Have only taken out with extractor from over 50 colonies 200 lbs., and think I had better have left that in as they don't lucrease much. Very cool, no comb honey at all.

A. J. HOOVER, Aug. 8th, 1874.

Really friend II., such a report is almost as dishear ening as to hear ones colonies are almost a 1 dead. Did we not know that you ready know how to take eare of bees, we might think some of the fau t yours.

What are the advantages of Alsike clover over White clover as a honey plant? Cuas, H. Rue, Manalapan, N. d.

That it is a larger plant, bears more and lar-

ger blossoms, and consequently gives more honey. On the other hand we really fear it is not going to "hold" in the ground like the common white, or even the red clover. Something has been said of seeding with what is called Dutch White clover. Can any one tell us more about it? Seedsmen advertise it we think.



### DEVOTED EXCLUSIVELY TO BEES AND HONEY

Vol. II.

OCTOBER 1, 1874.

No. X

#### HOW TO CONDUCT AN APIARY.

No. 10.

BY JAMES BOLIN.

LTHOUGH the labors of the busy workers are over for this season, those of their owner are

over for this senson, those of their owner are not by any means; and if he has many stocks to care for, this month will be a busy one for him. His labors no longer consist in preparations for surplus stoney, or an increase in the number of his stocks; but in preparing those he has, for whiter, If he would be cheered by their merry hum again next spring.

If the labors pertaining to Sept. were promptly and saithfully performed, those of this month will be much lightened. All stocks should now be strong in numbers, well supplied with stores, and have good prollife Queens. If, however, the apiarian has been negligent and put off until a more convenient senson what should have been promptly done, no time must now be lost. be lost.

be lost.

First and foremost then, he should see that none are Queenless, for trying to winter Queenless swamms leads to nothing but vexation. If any are Queenless, they should be supplied at once with a laying, or virgin Queen, or at farthest a Queen cell; as giving a stock brood at this season for the purpose of letting them rear a Queen, generally falls; not so much in rearing a Queen as in having her fertilized so late in the season. If neither Oneen or cell is to be had, perthe season. If neither Queen or cell is to be had, per-haps the best disposition that could be made of a Queenless stock, would be to unlie it with one having the season.

on a cool day, the bees should occupy at least four of the spaces between the combs, and from that up to 7 or 8, or even more. If any are found that are too weak, they may still be strengthened in some localises, where bees are yet breedling, by giving them frames of brood from strong stocks that can spare it. Where they cannot be strengthened in this way, they should be united until sufficiently populous, as one strong stock that will be almost store to live through the winter is worth more than two weak ones that will be about equally sine to die before spring. Care should be taken, however, not to take too much brood from strong stocks, to aid weak ones, lest the strong ones be injured. If any are short of stores and cannot be supplied by exchanging combs with others having a surplus, feeding should be attended to at once.

once,
One object in doing what feeding is necessary, as early in the fall as possible, is that as the center combs are then full of brood, the bees are forced to put the feed at the tops and back ends of the combs, instead of in the center, where they are quite sure to store the most of it if fed after the brood is hatched out. The storing of the syrup in the center of the hive, where the combs should be ceupty, I regard as one of the strongest objections to extracting all the honey and feeding syrup late in the fall.

In arranging the combs for winter, if the hive is full, the heavy combs of scaled honey should be placed on the outside, and those only partially filled, in the ceuter, for the bees to cluster in. If there are not empty combs enough for them to cluster in, one or two should be campiled with the extractor, to give them more room.

If the hive is not full of combs, the combs and bees should be placed at one side, and the space contracted by a division board; and if any frames are only partially illied with comb they should, unless nearly full, be placed at one side of the hive, where the bees would naturally have them.

While handling the combs in the fall it will pay to cut a hole in them about one third of the way down from the top. The object of this passage is three fold; viz: it will save the lives of a great many workers that are eaught away from the main cluster during cold spells of weather that occur before they are housed in the fall, and after they are taken out in the spring; it will enable them to reach their stores during the winter; and will promoto breeding early in the spring, by enabling the Queen to distribute her eggs more regularly in the combs while it is too cold for her to pass readily around the outside of them.

During the cold weather that occurred last spring, I found on several occasions where I had neglected to make a passage through the combs, a piece of scaled brood several inches square on one side of a comb, and not even an egg on the other side, the Queen being mable to reach it.

ed brood several inches square on one side of a comb, and not even an egg on the other side, the Queen being unable to reach it.

Where honey boards are used, they should be taken off the last of this month and their places supplied with quilts. By putting the quilts on early, before much freezing occurs, no frost will be formed on the combs and the bees will go into winter quarters in better condition than they would do if the honey boards were left on until they are housed.

Before putting on the quilts, a stick about ½ of an inch square should be laid across the tops of tho frames, so as to leave a passage between them and the quilts.

Before pitting on the quarts, a since square should be laid across the tops of the inch square should be laid across the tops of the frames, so as to leave a passage between them and the quilts.

Notwithstanding all that has been said about handling bees at all times, even in mid winter, I would earnestly advise that all the handling in the fall be done as early, and as long before housing as possible, as I have repeatedly found by experience, that disturbing bees much just before they are put into winter quarters has an injurious effect.

Last fall, and sevoral preceeding ones, I introduced a number of Italian Queens just before putting my bees in the house, and although I lost none of the stocks into which they were introduced, yet I almost invariably found more dead bees in them the next spring, than in others that were not disturbed. For bees to gorge themselves with honey just before going into winter quarters, is about as unwise as for a person to cat a hearty supper just before going to bed. Some people may stand it, and so will some swarms of bees, but it is unhealthy for all that.

Did not the disturbance, consequent upon moving them so late in the fall, have something to do with the loss of the bees Mr. Duniels purchased? I think Mrs. Tupper mentioned a similar case, as having occurred in the West some time ago.

West Lodi, O.

In the West some time ago.

(Frlend B's remarks so completely cover the ground, that we hardly need add more, but it may not be amiss to advise that your Beo Houses or cellars be put in good trim now, before cold and stormy weather. For instance, our own Bee House was too cold last winter; we resorted to artificial heat then, but will it not be better to bank it in well with dirt all around and prepare straw cushious to put between the doors ete? If any cracks are to be seen from shrinking of lumber, they should be caulked with list or strips of cloth, doors made close etc. etc. For ventilating cellars we know of no plan equal to having a stove pipe run down within a few inches of the cellar bottom, the other end communicating with the pipe of the kitchen stove. By allowing a piece of burning paper to fall on the floor you can readily see how this tube draws all the heavy impure air from the floor, up the tube. We saw the arrangement at friend Blakeslee's. Get it all fixed now before it is neglected. Ed.] before it is neglected. Ed.]

## CULTIVATION OF CATNIP AS A HONEY PLANT.

THE following was rec'd in answer to an inquiry for further particulars in regard to the cultivated Catnip mentioned on page 33, March No.

March No.

The bees are increasing in stores slightly upon the satnip. Everything else is dried out, and calmip don't produce half the honey it would were it not for the severe drouth. There are wells dry here at this time that have not failed before in forty years. Some of my swarms are building comb and some are not. Ou the 27th of July I examined nucleus No. 12 and noted in register, laying Queen. Aug. 14th I had occasion to draw on this number for a Queen, and was surprised to find them making a desperate effort to demonstrate the fallency of the big hive theory. My nuclei are made by putting division board in centre of full sized L. hive, and a nucleus on each side. This one had but two combs with adhering bees, when formed, and as nearly all the old bees would return to the parent stock they could not be over strong. In the little swarm had built one comb the full length to the bottom board and another comb \( \frac{1}{2} \) as large. The large one was filled with brood nearly all capped over, and the smaller comb had some brood, and all this in the midst of this severe drouth and searcity. Now who says a pint of bees in a hive will not work as well proportionally as tive bushels? This nucleus was not led a drop of any thing.

who says a plut of needs which seeds and the proportionally as tive bushels? This increase was a drop of any thing.

I believe the quality of the cainip honey is fully equal to the clover, and the color so near it that the difference is hardly perceptible. I desire to save all the seed, but have no plan of getting it ont except by hand, and I found that too tedious last year. Will not some of the friends who have been sowing Alsike seed give me some light on the subject. This seed is much finer than the Alsike but I think it could be removed by the same process. I had supposed until this year that the catulp would not bloom the first weason from the seed, but I sowed some last January, which is the best thine to sow it for the purpose of raising plants to put out next spring, and it now slands is inches high and covered with bloom and M. Nevins, Cheviot, O. with bees. with bees.

M. NEVINS, Cheviot, O.
P. S.—Muth says he will pay the same price for catnip honey that he does for the best white clover.

We at one time had a strong inclination to try a ten aere field of Catnip, but when we found that the expense, rent, labor etc., would amount to something like \$25.00 per acre, to us, cash out of pocket, and that 'twould even then be uncertain of giving any precise income, we confess we were somewhat intimidated. The same sum expended for sugar to be fed during the fall would be a positively safe investment; that is we get an equivalent from sugar without any doubt. If an acre of eatnip would yield during the season, a barrel of honcy, it would without doubt pay to rent land and cultivate it, but very much less would hardly make it a safe investment.

With farmers who have the land and time, the case is quite different, and if the catnip could be grown without any or but little cash out, we should say grow it by all means. Friend N. offers the seed as low as seedsmen, and of course knows it to be fresh and pure.

By the way will not "eatnip" honey necessarily possess some medical qualities? For the "infantile portion of community," for instance?

[For Gleanings.]

#### THE HIVE QUESTION.

T seems to me that there is a general misunder-standing on the subject of mammoth hives, a subject which is just now calling forth a good deal of comment; and if you will permit me to say a few words Mr. Editor I will try to keep shent in the future as I have in the past, for it doesn't behave every one to become a regular contributor to a Bee Journal if he is posessor of a few bocs. In the first place I

would say that hives which are arranged for securing such enormous yields of honey as we hear tell of, are a humbug. Now men of mammoth hives don't say "fogy" till I explain in what way they are humbugs. I keep two mammoths in my apiary just for "fun," and have arrived at the following conclusion:

In the first place they gather no more honey than the same number of bees when placed in two or three hives with one half or one third as many combs in each; and it takes more work to extract a given amonnt of honey from the big things, than it does from several small ones. Also, it often becomes necessary to move a hive when full of honey, and then if you are single handed, as many of as are, what are you going to do? And when it comes to whitering you have either got to divide—thus entailing an extra expense of two sets of hives—or else have a regular old fashioned barn raising to get them into the house. I have 62 colonies in hives of eight frames each, 11½x, 15½ and I can attend to them more castly and get just as much honey as if they were in 31 hives of twice-their capacity, and my Queens do not lay themselves all away the first season.

I know it sounds large to hear it said that Mr. Somebody had a single hive to gather six or eight hundred bis in one season, and it no doubt does stagger the old box-hive fraternity. But if any one will pay me for the extra trouble I will (a la Hosmer) have one hive of bees to gather 1000 lbs. of honey in '75, providing it is a good season, and will not brag about it either. It is my ophnion that for case of handling and for prolit we want hives with capacity of about 100 lbs. of honey per season in average localities.

my opinion that for ease of nanding and for From want hives with capacity of about 100 lbs. of honey per season in average localities.

There Mr. Editor I have said my say, and I think that experience will teach many to "see it" in about the same light.

L. B. HOGUEthe same light.

Loydsville, O. Sept. 8th, 1874.

The hive question is yet receiving much attention. Why do we want a better frame than the Langstroth? The two story hive—I think—for many reasons, will ever maintain a front position. The large hives about which I consulted you two years ago, with eleven Langstroth frames below, and fifteen above, the upper ones hanging crosswise, and down within three cights of an inch of the lower ones, is the tavorite in my spillry. My bees have done well this season. I am still taking honey from the upper story, W. P. MOORE, Richland Station, Tenn., Aug. 2nd. 74.

#### THE KING BIRD FOUND GUILTY.

L. WAITE, of Berca, O., furnishes some overy 'positive evidence and also mentions a habit of the King bird, we think not generally known to naturalists. During the month of June '72, a flock of seven of these birds were making such regular and constant visits to his Apiary that his suspicions were aroused and concealing himself, he with watch in hand observed a single bird snap up 5 to 8 per minute. After having pursued this "innocent" amusement for a sufficient interval, his birdship was in the habit of taking a rest on a neighboring tree, where after a short meditation he commenced a series of muscular contortions of the head and neek that finally resulted in his opening his mouth wide and "heaving up" a wad of some strange black looking substance. By chance their perch was close over a bed of Rhubarb or Pie plant and our friend secured a number of these wads as they fell, and thus settled the point of their being nothing more nor less, than crushed bees. After they had "squeezed" out all the honey. probably having no farther use for the "pomace" it was unceremoniously east aside while his worship with a keen appetite and zest for the sport, went "bee hunting" again. They came regularly for a "meal" two or three times a day. Gness we had better use our rifles and shot guns in such a way as to induce them to learn that Apiaries are "unhealthy" localities for such boarders.

#### OUR OWN APIARY.

THE weather is to-day, Aug. 29th, very dry, and sultry, the wind has blown the dust and leaves about in such disorder that our Apiary presents anything but a tidy appearance. To add to our troubles, the cider mill has commenced work and our bees were on hand punctually, as they were a year ago. Although quite a number of stocks belonging to others are kept in the neighborhood and if we are compelled to resort to out-door feeding, we shall have to feed the whole, yet we cannot have our bees annoy our neighbors; if they continue to work at the cider mill we must feed them sugar all they can all carry away. To add to our troubles, already a suspiciously large number of bees are crawling about in the dust looking for all the world as if they had had "too much cider." We are heartily glad to-morrow is Sunday, for we are tired. Our paper is out on time as usual 'tis true, but it was only by working nights that we were prompt this month.

Oh! that it only would rain.

Aug. 31st-We arose yesterday morning feeling that at least one day in the week our bees would not be tempted, for cider mills fortunately do not "work" ou Sunday. Early in the morning they seemed to be very thievishly inclined for they buzzed quernlously from hive to hive in a manner that betokens an unheal-thy excitement, and greed for gain not to be procured through the ordinary path of honest industry. We can readily imagine the feeling that a gambler or burglar must have after first poeketing dishonest gains; perhaps he has just abandoned an honorable calling because times are dull, and full of an unhealthy excitement at such a sudden and easy way of getting moncy he may for a time evade stinging reproaches of a guilty conscience for having appropriated without equivalent, the honest, innocent, earnings of his fellow men; but does not the time come when he feels that he would be far happier with the most meagre fare or plainest clothing for his wife and family, could be only once more lic down at night with the old feeling, that 'twas all his own and honestly gained, and that no one of his fellow beings had been in the least wronged ont of their honest carn-Have bees any conscieuce? are they just as happy while robbing their neighbors? We mused thus while studying their movements this Sabbath morning.

Later, after the dew was off, we were pleased to see them launching out in an opposite direction from the cider mill and when they began returning laden, and with that weary happy hum, that surely betokens honest labor, our curiosity was aroused. By nine o'clock a perfect stream of bees were pouring out in this same direction, and they hurricd out of the hives to file in with the throng in a way that seemed to indicate none would be left. 'Twas secemed to indicate none would be left. only an hour and a half to church time, yet we clambered over the fence, and "poured" in the same direction, our enthusiasm being kept up by hearing their hum over head. After passing through a picec of woods about a mile from home we found about a half acre of Bone set, or Thoroughwort, (Eupatorium Perfoliatum) and the view on coming suddenly out on

this mass of bloom, literally dancing, and joyous, with our Imported Queens young grand children, was indescribable. The blossoms were nearly on a level with ones head and the music the bees made was decidedly different in tone from that around the eider mill or the out door sugar feeding either for that matter. Their little selves were all dusted with the snowy pollen and their happy hum seemed to indicate that they, like ourself, felt such a feeling of thankfulness to our Creator for the beautiful world he has given us, that even existence is a pleasure. As this, could not employ all of them we went farther, and in a dense wood beyond found acres of White snake root (Eupatorium Lageratoides) not yet quite in bloom, but still visited quite plentifully with bces. Another plant interested us still more, but before describing it we will say that for several years past we have in the fall noticed bees coming in laden, that had a queer white spot on the taft between the roots of the wings. This sometimes had almost the appearance of a drop of white paint having fallen on them. In vain did we sally out with the determination of finding what plant gave this white powder, for we were invariably baffled, and finally consoled ourselves by thinking it must be from thistles. To-day however, no bees were on thistles, and yet this white spot was plainer than ever as they hurried into the hive to unload, and also when they hied to the woods again. The bells were ringing for ehureh, and we were more than a mile away in the woods, yet with uncovered head we stooped in mute wonder over the solution of the riddle that had perplexed us so long. The plant was the wild Touch-me-not, (Impatiens) so familiar to urchins on account of the wonderful pods that snap all to pieces when touched. Well the honey is secreted in a spur in the bottom of the flower, and the bce eau only reach this by diving down into it almost out of sight and when the coveted treasure is obtained he backs out with a ludlerous kicking and sprawling of his legs, and in so doing the down on his back is ruflled up the wrong way. Now this would be pretty certain to get the pol-len dusted all over him, but nature to make sure has planted a little tuft that bears the pollen just on the upper side of the entrance to the flower, and in his struggles to get out the white pollen is brushed all into his back most effectually, to be carried to the next flower and so oh.

As we hastened homeward with a boquet composed of the different plants named, we passed by a quantity of what is called here, Rag weed, or Bitter weed, (Ambrosia Artemisiafolia) here too the bees and nature were at work. Since Darwin has partially enlightened us we might say too perhaps, that "Natural selection" was at work. This plant bears the male, or pollen bearing flowers on tall raceines somewhat similar to corn, while the seeds are produced lower down where the branches leave the stem. As bees only work occasionally on this plant they are not really necessary to its fertilization as in the case of the Touchmenot, and accordingly we find that it produces hundreds of the male or pollen bearing flowers to one of the seed blossoms. Now is there not something analogous in this to the

fact that the economy of the bee hive demands that hundreds of drones be reared where only one is needed? The pollen is borne so much above the seed blossoms that the winds in wafting it are almost sure to fertilize the blossoms of some neighboring plant, and the drones as they circle up in mid air impelled by that wonderful instinct, are more than likely to meet with Queens from other hives than their

We reached church in very good season, and in a much more devout frame of mind than if we had spent the whole of the morning sleepily

over books and papers.

The spring seales showed at night a gain of one half lb., which though a small matter was enough to set us rejoicing. As the suspended colony is less than an average one, we can safely say we got 35 lbs. of honey during the day, from the Antumn Wild Flowers; and to-day they show 34 of a lb., or about 52 lbs.

from the whole Apiary.

Sept. 1st—One half lb. again to-day, and we think that they really have neglected the cider mill, as our neighbor promised to send his

little boy up to notify us, if they troubled him again as they did last week.

Sept. 18th—Nearly three weeks have passed and the bees have been busy, some of them on the Autumn wild flowers, others on dry sugar in the open air, but by far too many at the cider mill from which we have labored in vain to entice them, especially when they made "sweet apple" cider. With the extremely warm dry weather we have had this month, we have not sueeeeded in keeping them away entirely, although pollen in abundance, and considerable honey has been brought from the woods mentioned. Since writing before, we have learned there are about 200 aeres of the woodland fenced close from all kinds of stock, and also that the reason for this is, that same White Snake root that literally whitens the ground, is the eause of a species of "milk sickness." Since several people and many eows and horses have died from this, the woodland has been carefully fenced up. The honey from the weed has something of a hoarhound flavor, and gives the hives a peculiar odor. It has been suggested that our bees too, died from this same "milk siekness," but we are more inclined to accord it to the eider mill. At any rate our hives are now most of them heavy with nicely sealed stores and pollen; these stores are a mixture of honey and cider with liberal doses of sugar syrup given every evening, and all we can do is to hope the latter will counterbalance all ill effects of the former. As they have all been kept rearing brood briskly we trust at least two thirds of these stores are sugar.

We have loaned our Quinby smoker to the cider mill folks, and we are again using our "sauce pan." It certainly has one advantage, and that is, that it don't "go out" even if we do forget to "squeeze" it incessantly, but on the other hand it smokes ones eyes badly at times, and when the smoke don't happen to go in the right direction we sometimes get a sally from the hybrids that make us long for the bellows smoker again. The latter does good service at the mill, but it doubtless takes much time to drive the bees a little ways. We can

only eongratulate ourselves that 'twill soon

be cool, and then such troubles will be over.

Sept. 19th—'Twas just one year ago to-day that we moved our bees to the swamp on account of the cider mill, and the "cider mill man" has just been here to tell us that something must be done with "them bees." Of course we dampened the sugar, and soon had all the bees tame and wild from a nille or more around, having a grand free picnic at our expense. The weather has been unusually warm and sultry; eool days that must soon eome, will probably end this trouble for this season.

Sept. 21st-We have tried putting a strong colony in our bee house, placing it before the window so that it could receive the full rays of the morning sun. The great problem was, to see whether after collecting on the windows, they would regain their hive. It is with much joy that we are able to state they did, nearly all, after they had once learned how. The young Italians learned the programme readily, and even made foraging voyages to remote corners of the room to some combs of honey, and returned with the spoils, safely to their hive. The old bees, accustomed to the fields, as we anticipated, buzzed on the window until tired and then formed in a large cluster at the top of the window. In about an hour a few found the hive again and set up a loud call, and by noon, the entrance was covered with bees that with clevated bodies were fanning their wings at a great rate to make known to their comrades the joyful intelli-gence. By sundown, all were in safely except perhaps a dozen or two.

With space for them to enjoy the full sunshine, we have no fear but that all would regain the hive safely, but we confess it seems quite improbable that the bees from a dozen hives or more in a small enclosure would all regain their respective hives; still, until we have tested the matter, we have no real right to doubt.

We have before made mention of bees with distended bodies found around on the ground during "cider time." Well, among those on the window, we found quite a number such. and they soon fell to the floor. Later in the day the floor was soiled with their exerement and this soon had quite an unpleasant smell that reminded us vividly of two years ago, yet this was quite a warm day. Could they have had ample room to fly farther from the hive perhaps this would not have been observable, but we cannot help thinking it is the effect of the eider mill. Perhaps giving them a fly every week or two during the winter might do much to avoid the evil effects of such diet but that it will prove a perfect remedy for the gradual dwindling away as did ours last spring. we hardly dare hope. Our bees did not die with dysentery as has been intimated.

From an experiment made we would decide that bees do not make honey, but simply gather it. We threw out some of the thinnest, raw unripened honey that we could find during the basswood harvest, and put it in a fruit jar covering the mouth with thin guaze only. keeping it in a very warm place for several weeks it was found to be as thick as the thickest honey, to have lost its raw taste, and to have become nice honey, such as is taken out of sealed comb.

### OUR PRIMARY DEPARTMENT, Or First Principles in Bee-Keeping.

[Designed especially for the veriest novices, and those who know nothing of bees whatever. Conducted by a fellow Novice of several years experience replete with blunders, as well as with occasional nuccesses.]

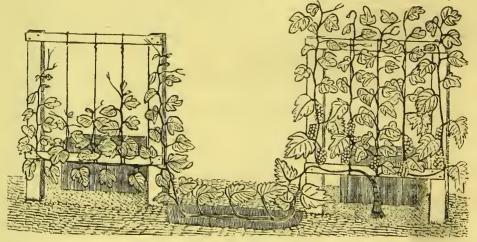
E promised to tell how to "swarm grape vines artificially." Very well: work one vine is supposed to have become strong and vigorous, and to have not only covered the trellis completely, but to have seemingly become impatient of being restrained by the continual pinching back uccessary to keep it within such narrow limits. It in fact has perhaps manifested this by blossoming and attempting to bear grapes out of season near the top bar of the trellis. It is precisely like a colony having too many becs for the size of the hive. Very likely each one of the ten npright canes has produced three or four fine clusters of extra large nice berries, but still the vigor of the vine, (if our directions have been carefully complied with) is equal to something more, and accordingly we encourage onc of the outside canes by allowing it to send a new shoot up above the rest of the trellis. When this is well started, the whole cane is bent over so as to go strait down to the ground and then curved outward so as to lie in a trench a few inches deep, that it may be covered with soil cuough to protect it from injury.

A new trellis is now to be constructed, if it has not been done before, just 3 feet from the old one; that is, the two trellises are to have a walk of just 3 feet in width between them. The new shoot grows very rapidly and can soon be tied up to the first post of the new trellis and across the lower bar. Now select a side shoot for each wire, and almost before you are aware of it, you have another complete

grape vine.

The accompanying engraving will make it all plain.

furnish shoots for not only a new one at the right and left, but also for the whole six that are to surround the original one, even in a single season if need be. As the new vines take root almost as soon as laid down, the old vine suffers but little loss, and new ones that were started in this manner the 4th of July last scason, are now pretty well loaded with flue grapes; their connection with the old vine enabling them to become bearing vines in one year only. Although their remaining attached to the old vine does not seem to impair its productiveness, the aid they receive from it is quite important. This matter we tested this season by chopping one of the new vines off where it left the old one, as we were hoeing about them. It had been growing with great vigor, and had considerable fruit on it, but the next day the sun hung its foliage like wilted eabbage leaves. By heavy mulching, and bnekets of water, we induced it to look up again, but it is far behind its comrades and we have decided it best not to sever "parental ties" in future at all, and if we are eareful in ticing them close to the posts in laying them down, they are never in the way. One strong Concord vine, we think could in this manner be easily increased to 100 ln three years, and they would all bear a crop in the year following the one in which they were started. So far as quality and size is concerned, of fruit from vines trained in this manner we would only say that we have never before seen it equaled. Our vincs are now loaded with delicious fruit, and Blue Eye's eloquent praises of "Papa's whole lot o' dapes," coupled with the appearance of the great purple bunches (which we would willingly share with our readers if we could) is enough to give one a mania for "grape growing," almost equal in virulence to the bee fever. Long may these two innocent and fascinating industrial parsuits, thrive in harmony. The idea, that the culture of either in any way interferes with the other is a joke entirely outside of our experience. Where grapes are



"SWARMING" A GRAPE VINE.

the hives are just visible through the foliage in their proper places. One strong vine will have among them; the bees of course then work on the brulsed ones but never otherwise.

The view is taken from the south side, and trained thus, fowls if allowed will make sad

## Gleanings in Bee Culture,

Published Monthly.

A. I. ROOT & CO. EDITORS AND PROPRIETORS

### MEDINA, OHIO.

Terms: 75c. Per Annum. For Club Rates see Last Page.

#### MEDINA, OCT. 1, 1874.

THE Bee World for Ang., was laid on our table on the 8th of Sept., but neither the A. B. J., nor B. K. M., were received until the 10th.

19 N. C. Mitchell has made good his promises of last spring in even a single instance we should be glad to publish it. Was not his prefended reformation only a prefense to get more yletims?

FOURTHEN No's for 75c. All subscriptions ree'd between now and Jan. 1st, will be credited until Jan. 1876. As we wish to be equally liberal with our old subscribers, to all who renew before Jan. 1st, we will send a—n—not a horse and wagon because they wouldn't go into the post office, so we'll say a penny whistle or—well, you'll know what when it comes.

Lors of trouble with the cider mill. To-day, Sept. 25th, the owner of the mill is laying idle at our expense. Even dampened sugar wont call the bees away now, and we don't know whether the trouble is that we have got so many more, or that the "Imported grand children" have a special funcy for sweet apple judge. We fear bees and cider mills are nusuited to be neighbors, at any rate 'its rather an expensive joke on as now. We have offered to enclose the mill, and to furnish wire cloth doors and windows, but our neighbor don't relish being shut up and wont listen to it. Sept. 25th—Sunshine once more, already. After a visit to the scene of war (cider mill) this morning about sunrise, P. G. quietly suggested cloth curtains as a remedy for the troubles that a dozen men had puzzled over in vain, and about which two had almost quarrelled. Some strips of pinc, a few nails, \$2.50 worth of sheeting 2% y'ds wide, and two willing hearts and hands, (Novice and the cider man) completed the whole in a couple of hours; the relief we feel in seeing the bees completely bafiled and obliged to return to their legitimate duties also allowing the cider man to return to his, is more than we can tell.

SEVERAL have written us in regard to making GLEANINGS larger with price to correspond, while thanking them we would say, that in order to do so we must have a considerable larger number of subscribers, and us we have full confidence in the Judgment and good sense of our American people we have felt sure they will give us the necessary support as soon as we deserve it. In this age of the world real worth is sure to be appreciated sooner or later. Rest assured that when the world sooner or later. Rest assured that when the world seemingly neglects to appreciate you, it is pretty certain to be the ease that there is nothing to appreciate, and that the fault is your own, and not theirs. Is not GLEANINGS as it is now, about large enough to contain all that is really new and valuable? Our friends may not all be aware that with the close small type used in GLEANINGS of late, it actually contains alone matters by measure than either the Bee-Keepers's Magazine or Bee World, and nearly if not quite as much as the American Bee Journal. The contents are also almost if not entirely original, and even if not always chosen with the haporiginal. The convents are also almost if not entirely original, and even if not always chosen with the hapiest faculty of pleasing every body, we have so fin been cheered in our failors with quite a comfortable amount of patronage. When we succeed in deserving a hetter one we feel sure we'll get it. Don't you kind reader?

WE have at a considerable expense of thue and money, had a Lithograph made of the Hexagonal Aplary. Of its merits we will say nothing, preferring that it shall speak for itself.

Our Photo was very well so far as Photography is capable of doing, but the amount of foliage threw so many shadows, as may have been observed, that a

Vol's I, 2 and 3, including Lfthograph, ordered at one The pictures are now ready for mailing. We have purposely omitted making any mention of them until they were all ready for mailing to avoid disappointment.

### HONEY COLUMN.

T the stores where I sell honey they put the bottles on the shelves and they are not noticed. Would not a good show bill with Pure Extracted Honey for Sale, printed on it be a good thing?

J. WINFIELD, Hubbard, O. Ang. 1st, 1874.

Such a card might be a good thing, but our stores and shops are so filled up with advertisements that people nowadays have a fashion of not reading any of them. This we have tested by experiment. If you can get a neat small glass case to be set on the counter, containing a sample of each of the different jars. also one jar coutaining a nice piece of comb honey it will attract attention quickly, and will be recognized at once by every one. This also helps the sale of the ext'd honey, for it customers are informed the jar containing one lb. comb honey and two lbs. ext'd is worth one dollar, while the three lb. ar of the latter is only 75c, they can soon reason out the real state of affairs. Should the dollar jars go off fastest, you can buy box honey of your neighbors and keep up the trade.

From the Daily Times of Binghampton, N.Y. of Sept. 1st, we gather that Broome Co., can boast of quite a number of successful Scientific Bee Farmers. Their uniform succes in getting large yields of box honey, shows that they either are experts in the business or that their

locality is extraordinary; possibly both.

Mr. J. P. Moore's yield is mentioned in mother place.

Mr. L. Beard from 22 stocks in the spring, has over one ton of box honey; his best colony gave about 160 lbs. Mr. J. L. Schoffeld has 31 stands that will average 91 lbs. of box honey each; one stock giving over 225. Mr. D. D. Winn, of Port Crane, has ten stocks that will average 100 lbs. per colony; best, gave 180 lbs. The most successful yields were from hives in which the honey was stored in framer Instead of boxes. The honey is sold in N. Y. City at an average of from 25 to 30c per lb. These are all men who take Bee Journals.

FRIEND NOVICE:—I almost think I am entitled to a place in the column of "Blasted liopes" this fall. From the condition my bees were in last spring. I expécted 3 or four tons of box honey, but alas! man merely proposes. Owing to the loss of nearly all the clover by winter killing, and drouth now, I shall bave to content myself by reporting 3000 lbs. "Tis true, the breeding apartments are full of honey, and I might extruct from 40 to 50 lbs. or even more, from each of them, and thus send in a nuch more flavorable report, but the fact is, the good people of

this section don't like extracted honey, and my bees don't like symp too well; so I guess I will leave the honey where it is until spring. I will then extract enough to keep it from interfering with breeding.

JAMES BOLIN, West Lodi, O.

1.——wrote Grimm and has just ree'd a letter from that gentleman stating that he has 12000 lhs. ext'd and 8000 lbs. comb. M. H. TWEEN, Pittsburgh, Pa.

Have taken 3036½ lbs. of honey. J. F. MONTGOMERY, Lincoln. Tenn. Aug. 26th, 187t. Short and sweet friend M. but you don't tell how many bees produced it.

[For Gleanings.]

#### ABOUT HONEY.

RIEND NOVICE:—We have heard many complaints made about extracted honey put up in

plaints made about extracted honey put up in common glass jars, with corks or metal tops. Even "Novice" says in the last Gleanings, that honey which he put up last year, oozed out of the tops of the jars or candied during the winter. We once experienced the same difficulty but have since learned how to take care of honey better and now have no such trouble. The plan of extracting honey as soon as gathered, straining it from the machine into the barrel, and drawing it off at once into jars, has caused much of this trouble.

Before commencing to extract, a portion of the honey in each frame should be scaled. This may be taken as an indication that the whole of that yield is evaporated and ripened sufficiently to be taken from the hive. After extracting, strain it or not as you like; it makes no difference in tho end. Just draw it off into buckets holding from three to five gailions each, and allow it to stand about two weeks, skimming it every day or two. Unless there is old honey candied in the combs, and thus mixed with the new in extracting, there will be no sediment. The skimmings will remove everything else, including what it is important to have removed, namely the little frothy substance which rises on the honey and which seems to be the cause of the fermenting and oozing out at the top of the jar.

Evaporation takes place while the honey remains in the buckets which leaves it still thicker to bottle. Honey treated in this way will be of good consistency, clear, of better favor than if put up without being allowed to stand and have the seum removed, and it will be wholly free from the tendency to ferment and ooze out, while it remains liquid much longer than if put up in the ordinary manner.

A visit to the Apinry of a friend in Nashville, Tenn, reveals the result of the same plan, only carried a little farther. This progressive amateur bee enthrist has some very fine samples of honey which he put up over three years ago, and which is now liquid and as clear as when put up. As he is too modest to state his

# FLYING BEES UNDER GLASS DURING THE WINTER.

Y reference to Problem No. 8, (April 1873) and No. 19, (Jan. '74) it will be seen we have been much interested in the feasibility of taking advantage of the natural heat of the sun, by cutting off the cold winds with glass sashes, as gardeners do in caring for choice plants and early vegetables. The only doubt that beset us was that it seemed somewhat improbable, from what we knew of the habits of bees, that they would go back safely to their hives instead of flying against the glass as they do in our dwellings. Our experiment mentioned on page 22 Jan. No., rather discouraged us, but we have no south windows, therefore could not give the bees the full rays of the snn. Friend Palmer, of Hart, Mich., succeeded better, and he sent us in May, a postal card that we really believe has been more valued than all other documents ree'd on whitering troubles. It would have appeared at the proper time but P. G. urged us to "go slow" this time, and if possible test the matter ourselves before going into print with it. As natural pollen has been coming lu ever sinec its reception no such experiment has been This is the precious document:

I have had a swarm in a cold frame. Size of sash 2½x4 feet, frame 3 feet high in front and 4 feet high at back or north end. Placed the hive close to the back end, facing south, with a dish of rye flour on top. They worked on the flour and went hack in the hive all right. Henry Palmer. Hart, Mich., May, 5th, 1874.

In the reports given of Mich. Bee-keeper's Convention, May 6th, '74, brief allusion was made to a paper from H. E. Bidwell detailing something new in regard to wintering, but either the matter was regarded as unimportant, or for some other reason, nothing intelligible was made public in regard to it until the Bee-Keeper's Magazine gave the whole paper in their Sept. No. While thanking them for brluging forward a paper of such apparently great valne, we cannot see why it was so delayed. If it is perfectly authentic, all of the various papers on ventilation, diet, bechouses etc., have been misdirected zeal. Again, in all that is to be seen on the subject, Mr. Bidwell's post office address is carefully suppressed. Is this characteristic of we Americans and our Institutions? If Mr. B. will himself state to the public that he prefers to answer no questions in regard to the matter, 'tis our impression that none of the readers of any of our Bee Journals would be so impolite as to intrude on him. We extract from the B. K. M., the most important part of the paper as follows:

"Having bought some bees last whiter, which we were anxlous to fly before putting them in the cellar, and having near at hand some empty hot-beds—which had been dug out in the fall for the purpose of filling and having near at hand some empty hot-beds—which had been dug out in the fall for the purpose of filling early in the spring—we thought perhaps a swarm might lly in one; something risked, something gained; so we put one in. The beds were roomy, 6x12feet, so that four sash 3x6 feet would cover them. The depth was about three feet, with a slope to the glass of one foot. In about twenty minutes after putting on the sash—it being mid-day, with a clear sky—the temperature arose within to 70°, and the bees commenced llying briskiy and voiding freely. At night we found every bee had returned to the hies.

The next day being clear, we put in two more; the next four; and the next eight. These all returned so well to their respective hives, that we next put in eight more, two deep. Being so well satisfied with the result, and having six of these large hot-beds dug out, we flew 111 stocks, as occasion required until spring.

The only caution I would suggest would be not to lly them too often, which can be readily prevented by covering the sash with boards.

Occasionally the bees will alight on the hives or collect on the glass, if the atmosphere gets hot and close within; they can easily be dispersed by sprink-ling straw on the glass to shade the bees and cool off the bed. A similar occurrence frequently happens out of doors, on a warm, close day, after the bees have been confined some time in their hives; they alight on everything, and remain until cold or himger reminds them of their home.

The advantages accruing to this method of wintering bees are—you can safely fly them at your pleas-

The advantages accraing to this method of wintering bees are—you can safely fly them at your pleasure; none are lost in the chilly winds or snow, or on the cold ground, which increases their value in our estimation two-fold."

From this brief paper we found it impossible to gather: First, whether the sun was the sole source of heat and these were only "cold pits" or "cold frames" as they are variously termed, or whether it was a veritable "hot bed." Secondly, did the bees remain in the pits or were they only lugged in occasionally from some where else?

Thirdly, did they all come through to the month of May in good condition? This last item may be unimportant, and he like Gallup and Adair may think it trivial and beneath him to count his hives and allow his pupils to make an estimate of the per cent that was probably saved, and thus decide whether they can afford to build Conservatories for bees alone.

Our readers can rest assured that we shall give the matter a eareful test and report from month to month. If it enables us to feed meal in the spring without the usual loss by cold winds etc., we shall think it of much more moment than simply getting them through the

winter.

# POLLEN. ITS RELATION TO BROOD-REARING.

RIEND NOVICE:—As you put me in 'Blasted hopes' department, in the July No., I must supplement it by souther plement it by sending you "Reports Encoura-

ging."
From my six pnny swarms I have increased to 25, all strong. I could have possibly made 30 but I am learning to move slowly. Our main yield of honey came from basswood and buckwheat, "Linden Avenue" had a few blossoms this season. Besides our increase I have taken almost 250 lbs. of honey. A bee house was to have been built and several other things purchased for the apiary, but 250 lbs. of honey wont make both ends meet and we mast wait another year. It is said, and truly, that "adversity enables us to wear out all of our old clothes." So, it will make us figure close in the apiary. Our cellar is being put in prime order for wintering now. We shall try natural stores and we are going to keep an eye on friend Bolin, meantime thanking him for the instructive article on page 105. Mr B, is evidently ready to forestall his "Waterloo" and to such a person it will never come, we trust.

"Waterloo" and to such a person it will never conse, we trust.

Now Mr. Novice we wish to consult a little in relation to pollen. Will it do to keep the Queen breeding intil late in the season? In nearly all our colonies in scasous past, the Queen generally ceases to lay almost entirely in Sept. or Oct. Now if we force brood-rearing at this season much pollen is used that would be of use in the spring, the old bees will live intil spring, if the pollen is preserved, a quantity of of brood will be capped over quite early, and by the time the old bees die off an army of young ones will be ready to take their places; furthermore may not the forced laying produce unprolifieness in the Queen

be ready to take their places; furthermore may not the forced laying produce unprolifieness in the Queen during the next season?

These thoughts present themselves as we perambulate our apiary; we would like to hear from others on the subject. It was very evident that bees hatched late in the fall of '73 died as rapidly in the spring of '74 as the old bees. J. H. MARTIN, Hartford, N. Y. Linden Avenue Aplary. Sept. 3rd, 1874.

You may be right friend M., in thinking late brood-rearing may deprive a colony of the pollen needed in the spring, but we are inclined

to think otherwise.

We have made a greater number of artifleial colonies this season than ever before, and in carefully watching the process of building np, we were surprised to find that an artificial colony, started with two frames of hatching brood and bees would in about ten days, or as soon as the Queens began to lay, gather more pollen than any old colony in the Apiary. This has been the ease invariably, and even now Sept. 11th, we find our late nuclel "sparkling" with heavily pollen laden bees passing in at the entrance, while our strong heavy colonles seem bringing scarcely any pollen at all. What is the reason? they can certainly find it as well as the others, if they thought it was needed. An examination shows that these old Queens have quite a tendency to eease laying. Is not some stimulus or excitement needed to stir them up? Natural swarms are frequently

mentioned as working with greater energy, gathering stores when old colonies were almost idle; now this is precisely the case with our artificial colonies, in fact they even commenee comb building out of season, if a space-ean be found in which to do it.

While we were rearing Queens last fall in the upper stories, these Queen colonies brought in pollen, while the old colonies below, apparently did nothing; had we fed them during Ang. and Sept., as we have done this season, perhaps they might have gathered pollen too. Is there not pollen to be had almost always during warm weather if they can only be induced to gather it? We have noted precisely the state of affairs you mentiou, viz: an absence of sealed brood or larvæ, but plenty of eggs during weather in the spring in which no pollen could be gathered; we also succeeded perfectly (see page 48 Vol. 1.) in getting larva-by giving pollen gathered the year before found stored in an occasional surplus comb. These combs were kept in the barn over winter. If put in a cold room we have no doubt but that pollen can be kept over safely; we should fear however keeping it away from the bees in very warm weather. If covered with-honey and sealed over, 'twould probably be-safe, but if unsealed and damp it frequently moulds. We succeeded in getting them to work on rye to some extent last season in Oct., see page 87, Vol. 1. We do not think the Queen's fertility in spring will be in any way impaired by keeping her busy during Sept. and Oct. In localities where buckwheat swarms and fall pasturage are common in the fall, we cannot find that the old Queens are in spring any less prolific than in other localities. Again, is absence of brood in the spring the fault of the Queen, or the fault of the bees in not using the eggs laid? We think the latter, for we have rarely found a Queen unable to lay as many eggs in March and April as could be cared for.

#### PROBLEM NO. 25.

OVICE:—Will you please teil me what it costs a comb to feed bees to build them? Will it pay to feed sugar to build combs when you can buy combs at 25c each? Mrs. L. HARRISON, Peoria, Ill.

My bees were in good condition when the honey harvest came, and I intended to take a nice quantity of honey but when it was too late I found I had no place for them to store it in, so I have to put up with what box honey I can get, but I shall have more combs another year. I had extra combs for two lilves and have taken 633 lbs. from them already and think I will get a 100 more. Lewis Kelley, Smyrnia, Mich.

We wrote Mrs. H. that we though it might eost about 50e each to get combs built by feeding, which would make it cheapest to purchase, but in that ease we generally have the trouble of transferring. An accurate solution of this problem is attended with no little difficulty, for whenever comb is built to advantage we have brood-rearing and the syrup will be stored in the comb more or less also. Besides, If the bees are gathering nothing at all, they decrease in weight a little every day, accordingly enough for their support must be taken into consideration. Who can report an experiment that will give us approximately, the expense per square foot of comb built by bees fed on sugar?

### Heads of Grain, FROM DIFFERENT FIELDS.

RIEND NOVICE:—You ask me it I like the two yet, but they

story hive best? I have not tried the New Idea yet, but thought that I would next season. I hardly think for my locality the long hive is as good as the two story; I shall give them a fair trial next year, but think they would only do for summer. I can't see how they would be any improvement on the simplicity for spring or winter. I have had splendid luck with \$1.00 Queens, got one of J. Il. P. Brown, one of Hosmer, two of J. Shaw & Son, and all pure; all came safely by mail. Those from Shaw & Son were packed best of any Queens that I ever got.

Bees have been doing very well here for the last two weeks, Buckwheat is in full blossom now and my hives are getting so strong that I think I shall have to divide them more. There have been 3 swarms of Italians in the neighborhood in the last few days.

I had 9 swarms of black bees and 3 of Italians in the spring, about as many bees in them as there would be in 4 good hives, had to feed them until the 10th of May to keep them alive; have now 20 good ones from them; all Italianized and got 486 lbs, honey which I have sold for 25c per lb. Had an order hast week for 4 doz, quart jars for Pittsburgh. Sold most of it in Muth's quart filmt glass jars, could sell five times the amount of such honey if I had it. Had two hives given me yesterday, the man who had them said they would die with him and if I would take them home I night have them. Had to haul them 15 miles over bad roads, broke down the combs some but the bees were all right; have two good Italian Queens to put in them now and they will make two more for me next spring (if they don't die).

E. W. HALE, Wirt C. H. West Va. Sept. 4th, 1874.

There now we've "ketched it." Onr Extractors have been so universally praised on all sides, that we began to think our head was clear on one point any way, and that we knew how to make an Extractor properly if we didn't know anything else. Therefore imagine our consternation on unfolding the following:

consternation on unfolding the following:

MESSRS A. I. ROOT & CO., Gents:—I busted up my extractor on lirst trial. The shaft broke off just below the wings while in I'ull motion and the racket that ensued eaused a rapid getting away of the curious spectators who had congregated to see the thing work. Of course I had to earry back my frames, much to my chagrin but to the evident delight of the bees, for they gathered rapidly upon the comb and slpped tho uncapped honey with great gusto. Those who had come to witness the operation, with one accord pronounced it a failure. I was forced to admit that there had been deception or carelessness in the making of the machine, yet I husisted that the principle was correct and that honey had been and could be extracted from combs by machines of this kind. But I could not demomstrate it. The machine was quiet enough now. The spectators, one by one, had returned, the boldest list, the timid later; the poor machine was limp and powerless, with its "in'ards" jumbled up like it had had a severe exercise with the cramp colic. I tenderly gathered it up and bent my way to the tinners, followed by the jeers of my valfant friends.

Wm. C. Griffer, Lamar, Mo. Sept. 12th, 1874.

P. S.—The tinners fixed it up and nothing could

P. S.—The tinners fixed it up and nothing could work better. It is just fun to throw out the honey (it cost me two dollars). My friends still pronounce it a humbug because I can't get them to look again to see it work. I suppose they are afraid of another "bust up."

We dropped friend G. a postal "instanter" telling hlm to make out a bill for all his tronble and ehagrin, besides the tinner's charges and we would remit at once; we tell the rest of our readers the same, if they have had any trouble through our carelessness. We have improved and strengthened our machines in several ways since that one was made, and invite reports in regard to their working, for it is only by experience that we can tell where to improve them without adding materially to their weight.

In two story blves, does the Queen occupy only one? Do the top burs of the lower story, the bottom bars of the upper and the space between prevent broad-rearing in both stories? That is, if room is given, will the Queen pass these bars and occupy both stories the same as if no bars were there?

PETER MOYER, Sharpsville, Pa. Sept. 15th, 1874.

The Queen generally gets np into the upper story after a while, and eventually we often get the bees, brood and all above. We suppose it is because the warm air from the cluster rises until it is conflued by the roof. This fact we consider the greatest objection to two story hives viz: the lower combs get cold and are apt to be deserted late in the seasou. vantage of shallow frames (where they are covered closely) for rapid brood-rearing in spring, is probably owing to this same fact. We always expect in using a two story hive, that the Queen will use both stories.

that the Queen will use both stories.

MESSRS NOVICE & Co.:—I am in a quandary, will you please lend a helping hand? Here is my condition; a short time since I ree'd from Mr. H. Alley, a nice Queen, I got ner safely into a very strong colony of hybrids, have fed freely since her introduction, on syrup; she is now laying. In this climate I have plenty of time to raise Queens from her, but there is not a single drone or any drone drood in any of my lives, or within five miles of me that I am aware of. Forage failed long since, and all drones were at once disposed of. How shall I proceed? Shall I try first to rear some drones to fertilize Queens this fall? or shall I rear one or two Queens, let them remain unfertilized and try to keep them over whiter in a strong colony to be used as drone layers early next spring, id est, if they should lay at all. A dozen or more laying workers, (so some say), are found in one hive at same time, would two or three drone taying Queens Ilvo upon equally peaceable terms in the same hive? Mrs. Tupper I think reports one case at least, where a Queen, reared very late in the fall, when there were no drones, was impregnated the following spring. We are told, that after a Queen attains a certain age without being impregnated, she cannot be iertilized. This may be true in relation to Queens hatched in the proper season. Gen'l Adair tells us that workers hatched late in Itall, remain in the adolescent state until next spring, that is, capable of performing all the work proper to young bees for a much longer time than if they had been hatched during the working season. Might not the same thing be true of voung Queens, hatched very late in fall? Remaining in Gen'l Adair's adolescent or immature state through the winter and still being capable of impregnation on the return of spring. J. H. Wilson Sen'r, Lexington, Texas.

If Mrs. Tnpper made the statement you mention, we presume she thought he sate mention.

If Mrs. Tupper made the statement you mention, we presume she thought such was the case, but a great number of experiments seem to indicate it an impossibility. Does not Adair's remark like a great part of his writing seem to imply that he is more familiar with long words than with the interior of bee hives? Your only hope is to rear droues by liberal feeding which you should be able to do any month in the year there, for we can rear them here in Oct. When you get sealed drone brood, raise a new lot of Queens. If a Queeu is not laying at oue month old, you are safe in considering her of no value. Even if rare iustanees do show eertaln things possible, 'tis very nnwise to ealenlate on a reenrrence of such improbabilities.

While two young Queens are occasioually known to have existed for a time in the same hive, on the other hand 'tis almost a daily oeeurrence (at the proper season) iu large Apiaries to have the first hatched kill all the rest. Even in our lamp nursery when they are without bees, they invariably kill each other,

unless quickly eaged.

If your bees have not already food for winter, even "Teakettles" may not save you now.

A. I. ROOT & Co. Shrs—I sent for a \$3.00 Queen and rec'd her about three weeks ago. I introduced her as you introduced your imported Queen, but she got out although I secured the front with whre cloth, as I thought perfectly. I sent for another Queen and in the meantime placed the hive with hatching brood on the stand of an old stock. I rec'd the latter Queen ou Monday last and placed her in a wire eage between the frames immediately; 48 hours later I released her and watched her with the other bees, when one bee pulled her by the wings I took her away and caged the hive, smoked the bees and sprinkled with sweetened peppermint water. I released her and watched the bees on the combs for some minutes. They persist in building Queen cells but I have repeatedly cut them out; now, I o'clock, I have just been out to look at them. I left the sheet spread out in front to see if they killed the Queen. When watching the bees with the Queen this morning I perceived no hostility and lot them. the Queen this morning I perceived no hostility and left them. I looked at them repeatedly but now at 1 o'clock, on examining the bees carried out I find

MRS. MORGAN, Elyrla, O. Sept. 4th, 1874. We get altogether too many reports like the Although it seems our friend did all that could be done with the latter Queen, she certainly deserves some censure for letting the former get away. Until bees enough have hatched to gather around the Queen and make her contented to remain with them, say 24 hours or less, they should be earefully fastened No need of wire cloth for this, as they need no provision for ventilation, but the hive may be made tight by crowding cloth or paper into the entrance. Any decent hive can be made perfectly secure in this way with but little trouble, and if the young bees have never seen any other Queen they will always accept the one furnished. It seems to us this method is always a perfectly safe one. We have always had much trouble in introducing Queens late in the fall by the eaging process; they will sometimes destroy them after they have been laying a week or more, therefore, keep all old bees away from a valuable Queen if she is rec'd late in the season.

On the 10th of July my two last natural swarms came out and lit on un apple tree within three feet of each other in a difficult position to julye. I finally got them hived all right and separated, but must have got the two Queens in one hive, for in four or five minutes after hiving, bees left one hive and went all together. I opened them the last day of Aug. and found them full of beautiful combs and full of honey, and knowing it would be to their interest I extracted two gallons of alce thick honey from them. This may not seem very large to you but it is so much better than I ever experienced in the swarming line I had to tell it. I have had black swarms come the middle of July and not half fill their hive.

half fill their blve.

Wm. PAYNE, Spencer, Medina Co. O.

Wm. PAYNE, Spencer, Medina Co. O. This report is encouraging for the Italians, as the month of August here, is almost without exception, not a honey mouth.

Will a Queen reared from a pure bred purely fertilized Italian Queen mother produce any entirelyiblack bees? I have reared Queens for ten years and never had a Queen that was reared from a pure mother of my selection, to produce any black bees whether mated with an Italian or common drone.

J. A. Buchanan, Wintersville, O.

Our experience is about the same. Our first Queen from Mr. Langstroth stocked our Apiary with Queens that produced two or three banded bees, but no black ones. In selecting one of these daughters to breed from the next season, we had colonies producing some bees all black, and the whole of them so cross that they they positively were enough to "make a preacher--"ahem, get out of patience. Since then we have had more or less of the cross

black bees every season until we reared from our Argo Queen; her daughters produced no black bees so far as we know, and our present Imported Queen's have produced none. Hence the position we have taken for years, that so far as honey was concerned, if we could only be sure of having all Queens reared from one of known purity it matters little what drones Probably any one of us would be satisfied with the yields of comb honey mentioned:

with the yields of comb honey mentioned:

I have taken of all my box honey now and have he the nelghborhood of 1800 lbs. of box honey and 500 lbs. of extracted, from 22 colonies in spring. My best hive gave me about 200 lbs. comb honey, and two or three others gave me 100 lbs. and upwards; I had other stocks that gave me but very little box honey, they were the light colored, very handsome, very gentle, very pure Italians. We find that a little dash of bluck blood is a great improvement in box honey workers, but we don't want enough black blood to prevent striping all the workers. When we get a light colored pure Queen, mated with a drone from an impure stock, it shows in the increased activity of the stock, and when we raise Queens from that stock, we get just about the color we want. Our plan now is to breed from the most industrious stocks both Queens and drones and no others. and drones and no others.

J. P. Moore, Blighampton, N. Y.

Yesterday I transferred a lot of grubs from cells started in a hive containing old black comb, to some cells I found started on new comb, and gave some to Queenless nuclei. To-day I find them all right and much lengthened out and well supplied with royal jelly. Some of the larvæ were pretty good size, some just visible.

J. A. Buchanan.

Did you ever! From this, it seems that all we have to do when we want a Queen, is to hunt up some old Queen-cells, put a small larvæ from our choice stock into each, and simply put them into Queenless colonies. Can't some one whittle ont wooden Queen eells,-like wooden nutmegs-and thus save the bees the labor of building them?

Davis' Transition Process really amounts to more than even we had anticipated. Both cells (mentioned last month) to which we transferred larvæ, have produced fine Queens. If there are to be no failures 'twill be

a novelty in Apienlture.

Friend B. sent us 50e for an unfertile Queen. As we had finished for the season, proposing to bend all our energies to the work of wintering those we had, we had no choice but to go to work and raise him one; this we did simply as follows: We put an empty comb in the centre of our imported stock and left it four days, then it was put in a Queenless colony that was waiting until we could get a laying Queen for them, and left three days at which time the Queen destined for them had commenced laying. Now as it was late in the season, they must have the Queen at once, and yet we did not want the Queen cells (of which there were 7 in an unsealed compact cluster) destroyed. To accomplish both, we moved the cluster, with the cells, to the north side of the hive and placed the laying Queen with two of her own combs with brood bees and all on the south side, filling between the two with empty combs. As we expected, the Queen cells were all properly scaled in three more days-10 days in all from the egg-and as we had no farther need of bees, the comb without bees was taken to the lamp nursery. Observe that we only kept a colony Queenless three days to get this lot of Queen cells. After six days more, 16 from the first eggs, two Queens

hatched at once and one killed the other. We examined them hastily, morning noon and night; the survivor—when we could catch her was put in a cage with a few just hatched bees from another hive, and mailed as above. On receiving her he wrote as follows:

Since writing the above I have ree'd the Queen. must say I have never before seen so neat and convenient a shipping box as the one you use; bees and Queen clean and lively. The Queen looks to be fertile; was she before mailed? She was introduced safely immediately.

The other five Queens were equally strong and finely colored,—none of the small black ones—and royal jelly was left in each cell. The temperature was kept the whole six days at from 90° to 100°, in fact "P. G." declared they would all be baked, but they were not. The workers of course did not hatch nutil four or five days more, so we had nothing but Queens in our nursery, unless for sooth the moth worms be counted that hatched and flourished with provoking vigor. We think 100° about the right temperature.

By permission of D. Lyons Browne, of Indianapolis, we give the following extract from a letter rec'd by him.

I have been engaged in a number of industrial pursuits for 40 years and I must say to you frankly, that bee-keeping is my favorite both for pleasure and profit. I am now running 1200 aeres of good land. Broad acres of waving grain and grass, herds of cattle, sheep and horses, are a source of pleasure, but nothing he comparison to the apiary. To hear their busy hum and behold their economy and industry, smell their sweet perfume and share with them the proceeds of their and our industry is a pleasure to me beyond description.

I have realized over \$10,000 in sales of bees and honey; more than in any other business in proportion to the capital invested. Last year I averaged \$\$1.00 per colony. I do not expect to reach that amount this year as I did not give the attention required to produce such results.

duce such results.

SETH HOAGLAND, Mercer, Pa. July 11th, 1874. If the number of colonies that produced this average was considerable, it certainly was a great result; too great for us novices to aspire to for years to come.

My ceitar ranges from 34 to 40°—when above 40° the bees are restiess. Until the past winter I have been in the habit of opening a window on north side and door on south (at night) and leaving open till the temperature reaches 32°—would close this once a week. I think bees need pure air as much as humans. This winter I think I will have a tube run from cellar to stove plpe in room above, this will create a druught and carry off the impure air. Where bees can be taken out and have a good fly—say in January and put them back, they will then go to breeding and keep it up. I know they will consume more food but then they will have bees to make it up when the flowers come. There was iess brood in my hives when I took them out in March than there usually is in January. I did not know how to account for it, unless it was that their supply of honey and pollen was less in quantity. It makes them feel good to have say 40 or 50 lbs, of honey in the hive, and If you intend to have a big start by the 1st of June it will take about that much to take them from Oct. Ist to June 1st. It is very easy to start a homo market for extracted honey by putting it up in an attractive form—say in jelly glasses with a piece of comb in; such as C. O. Perline whofesales at \$1.00 per doz. The glasses hold about ½ lb. of honey. I told my grocery man to retail at 25 cts.—they go off like "hot cakes"—3 lb. iruit jar \$1.00, and pay 10 per cent comulssion. Quart jars cost \$1.75 per doz., ½ pint jelly glass, tin top \$1.00 per doz. The first I bought cost 75c, and were the neatest, but I could get no more of them, they were sold too low, but to buy at the factory and a gross or two at a timo is the way to buy them. T. G. McGAw, Monmouth, Ill.

Please let me know through GLEANINGS, If the quilt in winter in the cellar should lay flat and tight

on the frames? if not how should it he? Two of the quilts are all waxed over on the under side. Will they do for wintering.? C. KENDIG, Naperville, Ill.

We use the quilts flat on the frames the year round. Waxing, or covering them with propolis seems to do no harm only that tis more trouble to remove them, when opening a hive. Laying a strip across the frame under the quilt to give the bees a passage has been recommended for winter, and friend McGaw of Monmouth, Ill., lays an empty frame under-neath the quilt. We have made some similar experiments but discovered no especial advantage.

Do you think bees can be taken from Detroit about the 15th of Sept., with no honey and little comb in hive, put on cars, fed and watched on route, carried to some good locality about the range of Northern Georgia and after that gather honey and bee bread sufficient to keep them through the winter? Can you from personal knowledge recommend some locality?

M. H. CLEMENTS, Belleville, Mich. P. S.—Can you give P. O. of some, bee-keepers in that section?

We have had considerable correspondence on the subject and would particularly refer you to M. S. Klum, Sherman, Grayson Co., Texas, and R. Wilkin, Oscaloosa, Iowa. Candidly, we fear it will not pay, still some experiments might be advisable. Shipping bees is as yet too risky a business to expect them to be handled as they should be.

Do you mit anything into the syrup to keep it from candying? Did yon know any trouble with that that you say you are now feeding to swarms you are building up? I mean those that you have wintered, and partly summered. Will houey som if extracted before being scaled? If so how do those manage who extract once in three days? Can it be evaporated to make it thick without injuring the flavor?

JOSEPH SINTON, Ithaca, N. Y. Aug. 5th.

Sugar and water only. The combs containing syrnp fed last fall, even when used in Aug. the present season were appropriated for brood-rearing without waste. It is seldom that honey is gathered thin enough to sour, even if you do extract every third day. Should yon happen to get any that is too thin it ean be ripened into perfectly good honey by keeping it several days in an oven or other warm The flavor is unchanged unless it is heated to the boiling point. As this artificial ripening is a slow job, we think it most profitable to let the bees do it. A very strong colony will get the honey ripened and much of it ready to seal in three days. The only sure way of telling when you should take the honey, is to go over a few hives and see if the honey obtained is ripe enough to snit yon. Thick honey is heaviest and will eventually, if it does not now, command the highest price in the market.

GLEANINGS came to hand on the 3rd and is full or GLEANINGS came to hand on the 3rd and is full of valuables. I notice you advise feeding sugar lumediately for winter use. I intend to winter on sugar but what shall I do? Nearly our best honey season is coming yet. Golden rod and Iron weed are our best honey plants after June. If the weather is favorable will I have to lose the crop or can I wait two weeks longer to feed? If It should not be scaled up until too cold weather could I not take them in a warm room to seal it?

A. T. WEIDNER, Bigler, Pa.

We certainly would not want to lose any yield of honey that might come any time when bees could gather it. We know of no plan except the one given on page 108 last month viz: make them store the late honey in empty combs placed on both sides of the central combs containing the brood and sealed stores, and empty their temporary combs as fast as filled, or extract all unsealed stores. We think we should prefer sealed honey to unsealed syrup. One or two wrote last winter saying their bees were doing finely on unscaled stores notwithstauding all that had been said against it. Late in the spring one of the most sanguine of them wrote as follows:

them wrote as follows:

DEAR NOVICE:—My bees have all gone to the d-d-d-dogs lhis whiter; did not have one left when the weather became fine enough for bees to fly. So I have commenced afresh with 17 swarms that I bought last week, all natives. Now Sir how would it work to winter bees in this way, say have both stories on with the hottom story empty, no frames nor comb in it, have combs frames and bees in the top story with a straw honey board on the top, and sun cap over that, and place them on the south side of an 8 foot high tight board fence. I think of trying this plan next winter if you are in favor of it. My experimental swarm I spoke of last winter, in the room, did not increase the least; the young bees would not come to perfection from some cause or other, and I could not keep my store room in which I kept my bees, cool enough to keep them quiet, and through fooling about with them lost them all.

M. Richardson, Port Colborne, Canada.

M. RICHARDSON, Port Colborne, Canada. The plan you mention friend M., has been tried, and gives no especial advantage. strong colony often winters well in this way, us they do in hives without bottom board at all, but much more food is consumed.

It should be borne in mind that a very strong colony can be safely fed, later than a weak one; if their hive is full of bees they can evaporate and seal up, but beware of giving a feeble colony in a large hive a large amount of stores, after the weather has become too cool for them to ripen it. All such experiments, so far as we can learn, as taking bees into a warm room in the winter time have proved failures. What will be accomplished by utilizing the heat of the sun's rays in winter time remains to be seen.

Some writers ciaim to have Queens hatch in 9 days, I never had one hatch in less than 10 days—unless it was the first lot I ever raised, and I have often thought the mistake was nine. Never have seen one of the Queens that only live two or three months. How long will a fertile worker live? G. M. Doolittle wrote a number of years ago, that a pure Queen mating a black drone would never show any black bees among her worker progeny. I have had a good many Queens that mated impurely whose worker progeny never showed any black bees. that mated imparer, showed any black bees.

T. G. McGAW, Monmouth, Ill.

DEAH NOVICE & Co.—Just now with us, it is distressingly hot and dry, not a particle of honey in the fields, still the bees are flying at a rapid rate. Do you ask what they are after? I answer water, water, writers tell us, as well as our own experience, that bees require water to prepare food for the grubs. With me, breeding for the present is suspended, no grubs to be provided for, still the bees drink an Immense deal of water, they require it for their own bodies, they also furnish the Queen with a liberal amount. My close dally observation this summer has fully satisfied my mind, that many, very many Queens sent by mail and express, during infensely hot weather, are lost while "in translur" solely for the want of water. I am not a Queen breeder, but an occasional Queen buyer, and hence, feel an equal interest with the breeder in safe transportation.

J. H. Wilson, Sen. Lexington, Texas. If you allow your bees to be entirely without

If you allow your bees to be entirely without brood in Aug., we fear we shall have to consider you a bad bee-keeper. Why don't you get ready for the yield that is coming? Water is a very good thing no doubt, but aint it rather "thin" for a regular diet? Joking aside er "thin" for a regular diet? Joking aside friend W., we presume you know your own business best, but we have been so well pleased with the plan of keeping things lively this

season, with sugar, that, we don't like to think of their being idle during warm weather. Our friend Dean who has had such success in sending Queens great distances, gives them nothing but honey in a sponge. A sponge filled with water does not answer for long distances; it evaporates and the sponge is dry, while the honey remains unchanged.

I sent to Mr. Alley last year and got an Italiau Queen, she lived till May this year, then was missing. Bees raised five Queen eelis, the Queen they saved was lost in bridal trip. Then I wis plagned with a fertile worker and they actually made Queen cells on drone eggs. I gave them a black Queen and after she had laid a quantity of eggs, she disappeared and they raised another Queen which now reigns I suppose. Now I have been plagned with that hive beyond account, and if I had not kept It up with brood and bees it would have gone up ere this thme.

Joun Pawson, Pontiac, Mich.

We dare say you have had far more trouble with the hive than if you had made an exam-

with the hive than if you had made an examination of it once in every week, or two weeks even. Fertile workers never make their appearance in a well conducted apiary, and they may almost be considered as only au evidence of inexcusable carelessness. If a Queenless hive has fresh eggs given every week or ten days, they will never appear; they are only seen when the colony has no Queen, and no means of raising one. With proper hives, we means of raising one. With proper hives, we can remove a frame from the center of the cluster and see if the Queeu is all right, in five minutes at least, and he who cannot take this trouble whenever the deportment of the bees outside seems to indicate a want of thrift, deserves to have trouble. We are well aware friend D., that you are not the only one who allows a hive to go, "weeks" without a Queen, but it is assuredly at a loss, for all that.

You say you suppose they have a Queeu now, we advise you to suppose nothing about it but look and see, at once.

Please tell me whether a stock will be any more likely to accept a strauge Queen after having been Queenless for a time?

ILA MICHENER, Low Banks, Ontario, Canada. We think as a general thing they will. Should they however have been Queenless so long as to induce fertile workers, the case would be different. A steady yield of honey has more to do with a favorable reception than any thing else we know of. Regular, liberal feeding until comb building has commenced, we think comes next to it.

Can Queen bees be sent from Ohlo to this place through the malls? If so what would each Italian Queen cost me here, and how soon in the spring could you furulah me with a small number? Bees begin swarming here the latter part of Feb.

D. F. McFarland, San Diego, Cal. Sept 3d, 1874.

We think our friend Dean, of River Styx, will send them without trouble, but it is difflcult to furnish dollar Queens here before July.

Some one asked you the question—will it do to winter in the long lives? I believe you answerd, yes. Shall we give the bees the whole length of hive, giving them pleaty of houey, pollen, and a lew empty combs in middle? or shall we restrict them to a limited portion of hive, giving them the balance of room in spring as they may need it?

J. H. WILSON, SEN.

We have had no experience in wintering in the long hives, and are therefore unable to decide. We should favor a division board, having uniformly had much better success at all times of the year, when the hive was of such size that the bees filled it completely.



## DEVOTED EXCLUSIVELY TO BEES AND HONEY

Vol. II.

NOVEMBER 1, 1874.

No. XI.

#### HOW TO CONDUCT AN APIARY.

No. 11.

T is with considerable hesitation that we undertake to advise at all as to what shall be done in the Apiary this month. If any eolonies are without food now, perhaps the only thing that can be done is to unite them until they have sufficient. About the 20th, in this locality is the proper time to put them in-doors. Reports seem to indicate that nothing is very well deelded in regard to what the frames shall be eovered with. Some ventilation to carry off the moisture seems many times absolutely necessary, and straw mats perhaps furnish the proper amount better than anything else. Quilts would probably come next if not too much eovered with propolis, and even then, where they are not glued down too closely around the edges they often do very well. Many also seem to be quite successful in using only the old fashioned honey boards. Lest the bees might get damp perhaps they had better be raised slightly at the back end, say the thickness of a 6 penny nail for instance. This ventilates between all the combs more effectually than openings in the board. The need of this ventilation is only during the coldest weather.

Where bees can fly frequently, or after March 1st, in our locality, we would have the covering over the frames as tight as we could possibly make it. Leaving an empty space beneath the frames seems to give no positive advantage, and for wintering the Simplicity hive perhaps tis as well to earry in bottom-board and all, simply removing the doorstep. To avoid earrying in a lot of dirt sticking to the bottom boards 'twill be well to raise the hives up from the ground on thin sticks after the flying season is about over, and before much wet weather has set in. If the hives stand permanently on a square frame of lneh sticks, they will always be ready to be lifted without earrying rubbish along with them: we would not have the hives more than one lneh from the ground in the working season.

The following is just at hand:

I don't want a "horse and wagon" nor a "penny whiste" but help. I have 13 stocks of bees in Langstroth hives, one or two of which are not strong, and I wish to unite them with others. Now what I wish of you is to inform me in plain terms how to do it safely. The other day I was examining a hive, the first frame taken out I laid near the hive and when I was done, put the frame back in its pince, with about a handful of bees that I took to be robbers, and the next morning I found about that number dead on the alighting board; and I am afraid if I unite a large quantity they would be treated in the same way.

JOHN OGIER, Baltimore, Md. Oct. 5th, 1874.

After eool weather has set in, simply kill the poorest Queen If you have a choice, and then lift bees comb and all, from one hive into the other. If they are allowed quietly to remain on their own combs, we believe they never sting each other. Close up the hive and let them "fix it" when they get ready. If you can-not manage to get each colony on five combs, go to both the day before uniting and remove all but five of the most desirable combs, plaeing the combs of one of them in the middle of the hive. Next morning while it is yet quite eool you will find all the bees on the combs and they ean be then earried to the other hive, losing seareely a bee. Tr the weather is warm soon after this, some bees will go back; these will eluster on an empty comb if it is given them, and ean then be taken back at After a few days cool enough to prevent flying most of them will remain. Caging Queens in cold weather is so risky that we would not advise it even though a Queen be killed occasionally in uniting. We would not advise any one to purchase or attempt to introduce Queens, in Oct. or Nov.

Most of our readers are probably aware that a strong swarm will stand almost any degree of eold for a short time with no apparent harm, and that out-door wintering would on some accounts be the most desirable, were we sure of having a "warm spell" as often as once in ten days or two weeks, to allow the bees to exercise, and to bring a fresh supply of un-scaled honey into the elnster. Bees seem to find difficulty in going over to another part of the hive among heavy sealed combs, during zero weather. Quinby argnes in view of this, that noless bees can be honsed in a warm place, they had much better be left out, to take the chances of occasional snnshine; and also, that unless we have as many as 50 in one room we cannot expect it to keep above freezing. Therefore, a wintering house, if it is to contain less than 40 or 50 stocks, must have walls so thick and warm that it would be like a cellar, almost or quite frost proof if it eoutained no bees; otherwise your repository is in danger of being little better than an open shed on the north side of a barn, in fact the very worst place you can select. Covering hives with straw, or corn stalks, just enough to exclude the sun is about as objectionable. They are partially shielded from the winds 'tis true, but does this compensate for the loss of the sun-

During the past winter a neighbor (A. A. Rice, Seville, this Co.) gave his "a fly" four or five times during the winter, and the whole, 30

or 40, came through in excellent condition. Two reasons prevent us from recommending this course generally; one is, we seldom have warm days at intervals as we did the past winter, and the other is that so much disturbance in mid-winter with the chances in favor of sudden and unexpected changes, would be pretty certain to make mischief among novices, to say nothing of the back breaking task of so much incessant lugging hives about.

### OUR PRIMARY DEPARTMENT, Or First Principles in Rec-Reeping.

Designed especially for the veriest novices, and those who know nothing of bees whatever. Conducted by a fellow Novice of several years experience replete with blunders, as well as with occasional

USUALLY the first work in the Apiary commences about April 1st in this localicommences about April 1st in this locali-If the hives have been wintered in cellars, or special repositories they are generally put on their stands in March or April. The great point in bee-keeping is to have an army of workers ready for the blossoms when they come out. To enable us understandingly to go to work to seeme this we shall have to consider something of the Natural History of the bee. As we have before mentioned, the Queen lays all the eggs. These eggs are deposited in the bottom of the cells to which she attaches them by some glutinous matter so that they stick in the center of the bottom with considerable force; she commences to deposit these eggs about the first of Jan., and continues to deposit more or less daily for at least the next ten months of the year. It has of late been discovered that only a very small number of the eggs ordinarily produce bees, more especthose laid in the winter and spring months, although we believe every egg is capable of producing a perfect bee if it has proper care from the working bees. Now when we take into consideration that the yield of honey that may be obtained from a hive directly depends on furnishing the proper conditions for these eggs to hatch, we see the importance of being able to assist nature intelligently. Perhaps the first essential is to give the Queen a brood nest in the center of the hive at a uniform temperature of from 90 to 100 degrees; in the present stage of our knowledge we know of no other way to secure this with all other requisite conditions than to have a large eluster of bees surrounding the Queen, and covering the combs. The eggs when kept at the proper temperature hatch out a tiny worm or larvæ, in just about three days. It is quite probable that aside from temperature the bees have some agency in making these eggs hatch, for they, from the time the egg is laid seem incessantly busy "poking" their heads into the cells containing the eggs; be this as it may at any rate so soon as the larvæ breaks the shell, it is kept profusely supplied with a milky looking food probably produced in the stomach of the attendant or nurse bees. Those larve at first just visible to the naked eye now grow with marvelons rapidity and at the end of about 6 days more, they almost entirely fill the cell, and are soon capted over forming what we call scaled brood. The young bee now

receives no further care, but after about 11 days more-21 days from the egg-it gnaws itself out of its cell a perfect bee and ready to assist in some of the duties about the hive in perhaps 24 hours after.

This milky food administered to the larvahas of late become an interesting matter, for unless the workers can supply it plentifully, the eggs laid by the Queen seem to be removed by the workers almost as fast as laid, at least they are gone and we find fresh ones in their places every day, but no unsealed larve is to be seen in the cells until the workers can go abroad and gather pollen from the flowers, providing they have no supply kept over winter in the comb. Some instances are mentioned 'tis true in which a limited amount of brood has been reared without pollen; but so many circumstances seem to indicate pollen as being an absolute necessity for brisk brood rearing that we may consider it established we think. and proceed at ouce to consider whether any substitute may be protitably furnished in the spring, before the blossoms yield a supply. It was some time ago decided by analysis that the composition of this pollen, or what is better known perhaps to some of our readers as "bee bread," was quite similar to that of the unbolted flour from our common grains, Oats and Rye particularly, and that bees will earry into their hives considerable quantities of this in the spring is well known, heavy colonies having been reported to have carried in 20 lbs. or more each, in a season. We are happy to say that this substitute seems to answer every purpose, and the heaviest crop of honey we ever had was after having fed them most liberally with the Rye and Oat meal in the spring. To get them to take it 'tis only necessary to place it in some sunny place, as much out of the wind as possible, in shallow frames or boxes. If they don't find it readily, get a few bees at work on some bits of comb honey, and then lay them in the meal. If it is before natural pollen has come they will soon abandon the honey, and commence a joyous hum over the meal; after the soft maples and alders yield pollen they will pay little or no attention to the substitute.

While fruit trees are in bloom, but little can be done to aid nature unless it be to put a frame of empty comb in the centre of the brood nest to give the Queen more room for eggs. this should only be done however when so much honey is brought in that she is really in need of more empty cells that the workers have provided for her. Much mischief has been done by beginners, in their zeal to have a colony rear brood faster, by spreading the brood nest so as to expose and chill the larva-After fruit blossoms, in most localities there is a dearth of honey yielding plants for two or three weeks, or until clover begins to yield.

As we cannot by any means afford to have our colonies stop rearing brood we would advise feeding through this period. No provision need now be made for pollen, as plenty of it abounds, and we need only consider liquid food. For this purpose sngar syrup is probably equally as good as honey; for the method of feeding, see Universal Feeder in Sept. No.

At this season we should feed only so much as will be used in broad-rearing and no more.

[For Gleanings.] REPORT OF OUR APIARY FOR 1874.

BY G. M. DOOLITTLE,

Show was three inches deep the first of M. E had a very cold and backward spring. Snow was three inches deep the first of May and moon examining our hives the 4th of May (which was the first day we could do so) we found them with no brood and but few eggs. We gave them the best of care in our power and by the time apple blossoms opened we had them in quite a prosperous condition, although yet few in numbers. Apple blossoms furnlshed an abandant supply for brood-rearing, and some of our strongest stocks made a gain of from 1240 16 lbs. We always have a season of scarreity between apple and white clover, and by the time white clover opened, which was about the 18th of June, our honey in the hives was nearly exhausted. As white elover was nearly all killed by freezing weather last spring, bees did not get any more than they consumed until sumach and whitewood opened, which was July 1st, and lasted but four days as it came on wet then and continued so until the 16th of July, at which time our hives would not average 2 lbs. of honey in the hive; a week of rainy weather at that time would have starved the whole, without the aid of the beekeeper. Basswood opened the 16th but bees could do nothing on it until the 19th on account of high wind and rain. Then came 7 days of fair weather, then three of rain and then two more of fair at which time basswood was gone, making 9 days of basswood. Teasel yielded very sparingly but from buckwheat we got 900 lbs. of surplus which was the most we ever obtained from that sonree.

Thirty seven out of our 50 stocks we worked exclusively for box honey and the remainder we devoted to improvement of stock and increase. We have at present 100 stocks in fair condition for winter and have sold 3671 lbs. box honey or a fraction of a pound less than 100 lbs. to each old stock worked or box honey. We sold our white honey, 1274 lbs.) at 28½ ets. per lb. here, and the dark at 20½. Extracted is worth but 12 ets. with us, but as we have note the price will not affect us any.

we should be pleased to hear a report from those large hives and prolific Queens down in Kentucky, kept by Mr. Adair.

How many of the readers of GLEANINGS have been

kept by Mr. Adair.

How many of the readers of GLEANINGs have been troubled with their bees persisting in building drone comb? We never saw such a year. Some of our new swarms built ten full frames of drone comb before we could get eight worker built. We first commenced to could get eight worker built. We first commenced to could lie to but they would build it right back drone, so we adopted a new plan; we let them have it and kept shoving it out putting empty frames in the center and by the thne they had 4 or 5 drone combs nearly built they would think it was time to build some worker. We think a great deal of nice white drone could for boxes, and in order to get it so, we opened each new stock every four days and what combs had larve in we took out, and left the others in until next time round. When they would not build worker any long-re we illed out the hive with worker combs from our nuclei. Mrs. Tupper and others tell us to make our new swarms by taking full frames out of several old stocks and putting empty frames in their places thereby making a full stock at once. We have found outselves often wondering at such advice as we never have been able to get one square inch of worker comb built under such circumstances.

Borodino, N. Y. Oct. 12th, 1874.

In reading the first half of the above we had almost concluded our friend was going to be a candidate for "Blasted Hopes," but "shades of Huber!" we certainly know nothing of bee-keeping if it be possible to get 2774 lbs. of box honey from 37 stocks in but little more than nine days yield of honey. Again the 13 remaining were increased to 50; this is not so very difficult if the season were fair, but friend D., you certainly had a good yield from some source for more than the time specified, or else you possess some secret method of getting honey not yet given us through the Journals. We'll have to pay you York State fellows a visit and learn something if we are so far behind. Sevenly live lbs, each during the basswood yield would be over 8 lbs. per day, for 9 days, box honey. Saving all the nice white drone comb for box honey is certainly a very important item.

#### OUR OWN APIARY.

E have to-day, Oet 9th, commenced going through the hives for the last time. ing through the hives for the last time, inspecting bees and stores, cutting winter passages through such combs as have none, ete. We find that our quilts are always kept above the frames far enough to allow a bee to pass, hy little projections of propolis, comb etc., so we shall not think it necessary to lay a stick across under the quilt. We find some sealed broad in the hives but no eggs. They are bringing some pollen now; this will probably be kept until spring.

We are enjoying ourself hugely just now in making a Glass House, (we'll have to stop "throwing stones" will we not?) it is simply a wooden structure 8x13, set in the ground 212 feet, and the dirt thus removed is thrown on the north roof (which is of boards) and banked up at the east and west ends. The south roof and south side are to be all of glass. We propose to make this an experimental "hospital" for bees that get uneasy in winter, or for very

weak ones in spring.

Oct. 15th-We have had two severe frosts, and as usual we find a few dead bees bro't out of most of the hives afterward. We presume these bees have been caught away from the cluster, and in drawing together as the cold increases they found themselves separated by an entire comb, and being too much chilled to go around or over the top, they are frozen. In front of one entrance to our Standard hive we found the Queen dead among a small handful thus brought out.

Alas, our 70 colonies, are already, only 69. Oct. 16th-Another frost, and another Queen found in front of the hive. Our subterranean Green House is nearly finished. Although the day has been only tolerably warm, the ther-mometer showed the temperature of the air inside to be 115 degrees, about two o'clock, and we have not had the glass washed yet We have been of the opinion that bees would thrive even during our hottest summer months providing honey was yielding plentifully but whether they will rejoice at the temperature mentioned is more than we can say just now, but we assuredly will test the matter.

Oct. 19th-To-day being warm and pleasant we have looked up the cause of the loss of the two Queens. Our Standard hive contained two colonies; it came about in this way: P. G. some time in June petitioned her choice of a nice lot of Queen cells just built, and combs of brood sufficient to start a colony in the "Standard." Much was the bantering and joking in regard to her ability to choose a cell that would produce the finest Queeu, and when it really resulted in a crooked one, while all the rest were fine and shapely, of course the crooked Queen was a standing jest. She became fertile and in due time laid eggs, but she made so slow progress that a division board was inserted, an anger hole made in the back end and a new Queen reared. This last proved very prolific and so rapidly did she fill the combs that her colony in a short time eclipsed [Continued on page 125.]

# BEES AND THINGS "AWAY OVER THE WATER."

FROM ONE OF OUR NUMBER IN AUSTRALIA.

EAR NOVICE:-I rec'd four Nos. GLEANINGS, two packages Oncen Registers, and King's Text book, all in good shape. I must certainly com-mend you for the manner in which you send your

goods out.

1 see you are about to have a Standard frame and hive also. I think it about time; now, the "horizontal" as you call it, has been in use at my Aplary just three years. I have only worked six of them as yet, but I am about to have my Aplary composed of hives holding 40 frames each, the frames are 18x10, which I intend to keep to. I have hives at the present time working frames of the following sizes: 23x8½, 12%x 13½, 18x10, 16x10, and 13½x8. The different frames have been brought into use just by way of trial,

And of all the frames I ever did see, Eighteen by ten is the frame for me.

And of all the frames I ever did see,
Eighteen by ten is the frame for me.
Adair is right in saying that a large hive will prevent swarming if properly managed.
Your Queen Register is a first-class affair, but for this fair land of ours, we should require every month in the year. I thought I should have had some use for the cards by the time they arrived, but alas! I am doomed to disappointment. I told you about Quinby-sending me two colonies of bees, in my first letter, the bees were not ordered in my name, but Novice I must not forget to tell you that it was my money that paid for them. And what do you think the charges were? just 13£, 5s, 7d. (about \$70.00). Now the only thing that I blame myself for is this, I onght to have written to Mr. Quinby stating full particulars. We have now a Royal mail from San Francisco which makes the run in about 30 days, they wont refuse to take bees now. If Mr. Q. or any other bee-keeper in America will try their hand at sending a colony of italians, and the Queen is only alive when I receive them. I promise to forward by the return mail \$25.00, and it it proves a failure I will pay the usual charge. I refer them to my Banker in Queensland, any member of the Legislature, any Newspaper Editor, or to the Governor himself. Moncy is no object providing we can get the bees safe, and for my part I see no difficulty whatever in sending them. I have tried from Neighbor & Sons, London; some bees arrived but the Queen was lost shortly after leaving England. I wrote them about it and they expressed their sorrow at the failure and said that if I could devise a better plan they would send out another colony.

It is mid-winter with us, and one bees are gathering honey and pollen at a good pace. We have something blooming all the year round in this fair and happy land. I wish poor old Mr. Langstroth were here, I am sure he would live much longer.

I have sent the Blue Eved buby a photograph of one of our Natives.

J. Cakraol L., Mohawk Valley, Ennoggera, Queensland, Austraila. Via San Frisc

Who will send friend Carroll the bees and thus successfully introduce the first Italians In Australia? Quinby, and Neighbor & Sons, have failed but with better facilities now, we think it can be done. Observe he offers to bear all expenses, and run all risk, whether the bees arrive alive or not. Those who are willing to try had better drop a letter to him. The letter must be prepaid 10e. Perhaps Dean can send him a Queen by mail. He has never failed yet to our knowledge. The Photo, mentioned will make a rare addition to our "Medley."

# HONEY RESOURCES, BEE-KEEPERS ETC., OF THE SHENANDOAH VALLEY.

BY M. H. TWEED.

RIEND NOVICE:—The following week after re-RIEND NOVICE:—The following week after returning from your place, I started for Virginia, was away six days and had a very successful and pleasant trip. I called at the little towns between thriper's Ferry and Winchester, and from there I drove up the beantiful valley of the Shenandoah, was on the road with my horse for four days. I found a great deal of honey in the valley and at reasonable prices. I bought some in large caps—beautiful honey at what they call a shilling per fb., a Virginia shilling is 16% cts., and we are getting considerable at 20 cts. there. I do not think there is so favorable a place for

bee-keeping cast of California as the Shenandoah valley. The principle reason is that the Binc Thistle abounds in the whole valley. Then the climate is most favorable. The Bine Thistle makes rich white honey, is in bloom fully four months of the year, each plant has from 25 to 50 blossoms on it. One great advantage it has over white clover is that in pastures the cattle cut down the white clover while the thistle is never molested. A blue fled looks handsome though it is a great pest to the farmer. I cut a sample and brought it home as a curlosity and if you have never seen one and care to look at the great honey producing plant of that valley, drop me a postal card and I shall gladly send it to you. There is great room for such a man as Novice down there. With the exception of about a balf dozen, the bee-keepers of that valley know very little about bee culture. I saw two extractors and they had not been used to any extent. One owned by Henry Slagle who understands because such a man as Novice down there. With the exception of about a balf dozen, the bee-keepers of that valley know very little about bee eniture. I saw two extractors and they had not been used to any extent. One owned by Henry Slagle who understands bee-keeping very well, takes two or three Bee Journals and makes money out of his bees; he bas 100 hives and has this year 4000 lbs, comb honey, he fives had lost this year 4000 lbs, comb honey, he fives had had has this year 4000 lbs, comb honey, he fives had had has this year 4000 lbs, comb honey, he fives had had had had nown which the second by a Whichester man—Offiver Brown, a very fine old gentleman. He knows all about Novlee and had many questions to ask about yon. With the exception of your Aplary, his is the linest I have ever seen—50 conies in Laugstroth hives. Slagle's are also in the Langstroth hive. In wintering, they in the whole valley scarcely ever lose any; in nearly all cases they winter outside. I found very few Italians, only such men as Brown and Slagle know anything about them. The principal hive is the old box hive, where they have anything else it is the Langstroth, and ha few cases the American. The majority of them call aciony "a bee," I found an old watch repairer in Front Royal who had 60 hives, had been keeping bees for 25 or 30 years, and had never seen a Ree Journal or heard of an extractor. Had heard of bee veils but had never seen one. He took me out to look at his hives and when within 20 yards of them, he said we had better not go any nearer as the bees were very cross. I did not wonder at that man not getting nucch surphus honey. Helt hin two coples of GLEAN-INGs and bought what honey he had, some 500 lbs, found one of your subscribers, Steed & Son, near Front Royal. They have quite a large Apiary and seem to be learning something in the way of bee management. I was looking at one of their hives which resembled a coffin very much in shape and the old man told me that Jamie put a "bee" in that in the spring, and now he had it nearly f

what are called wild bees.

On each side of the valley extends a great range of mountains, the North mountains on one side and the mountains, the North mountains on one side and the Bine Ridge on the other, on these mountains a plant or small bush grows called Laurel, it is poisonous in itself but on it there is a pretty flower which yields honey largely; rank and bitter it is, and I was told that a liberal dose will always be followed by sickness. I know the taste for I got some for breakfast at Shausburg. Now as no bees are kept that are confined entiroly to the mountains, there is no Laurel honey of any account excepting such as is got from bee trees, and it is natural enough to suppose that the difference is caused by the bees that gather the honey. Pittsburgh, Pa. Sept. 26th, 1874.

[Continued from page 123.] the other although made fully six weeks later, and nothing prevented the execution of our original intention, viz., killing the "erooked Queen," except that she proved pure, and the other hybrid. After some discussion they were both to be allowed to winter and further steps decided upon in the spring. The Queen found at the entrance was not crooked and the examination to-day showed that our division board although nicely fitted at the time, had shrnnk so much that the bees were passing under one corner and so we had one large colony instead of two with a crooked Queen as their only We have before thought we wanted no more divided hives, yet division boards can be made perfectly safe we suppose, although they have cost as some fine Queens before. The other hive proved to have a young Queen

inside so that we have lost only one after all.

The Green Honse is finished and two colo-have been in it for two days. 'Tis true they will take syrup from the opposite end of the room and earry it to their hives, and a part of them seem contented and industrious, but by far too large a part will persist in flying against the glass bumping about until they fall tired and exhausted to the ground. They will not as yet touch the meal but have their hives pretty well filled with syrnp and have commenced scaling it up. The very high temperature in the middle of the day seems to make them very little inconvenience. We imagine 'tis the young bees that do the work and that the old ones acenstomed to the fields are the ones that blunder about on the windows. The walls absorb so much heat during the day which they give ont at night, that the air is kept all night at a very comfortable tempera-

Oct. 20th-Three more eolonics have been placed in the green house and we are sorry to say they don't do just as we would have them. They will eluster on the windows and bnzz about until a good many fall down on the ground. Toward night the greater part of them get into hives and if the glass was only a foot or two above the hives very likely the humming as they find their hives would call all the late bees into some hive, but as for finding their own, when so many are crowded together, it looks quite doubtful. The bees in the first two hives 'tis true, seem to be quite at home, and flit about gathering stores etc., and seemingly never touch the glass. Had they all been put in after having been confined some days by cold weather, that might have made a difference, as it is, we have had a fine spell of weather for some days. We have made one discovery which is new to us at least. The syrup we have been feeding is quite thin. the two first mentioned have filled their combs so well, that even the eggs one of the hives contained are now erowded ont. This morning laden bees were going ont so rapidly from one of them, we thought it might be they were being robbed. After a little practice we were enabled to follow them easily on the wing, and made out umnistakably that they, after daneing a while in the sunshine, discharged from their bodies what seems to be only pure water, and after this manouver they returned immediately to their hive with bodies so much reduced in size that they made

quite a contrast to their comrades who were just going out. Many bees are hopping about on the ground with distended bodies seemingly nnable to take wing, and soon die. Does this not partially explain dysentery and show why It is so essential that diseased bees be allowed to fly occasionally? May it not be also that this is a part of the natural process of freeing the raw honey of its superfluous water?

Many of the bees on the glass, we notice are those with the distended bodies, and perhaps the instinct that impels them to get a greater distance from the hive is the canse of their

Oct. 21st-We put a curtain of eotton cloth over the glass to-day and thus kept an even temperature of about 800; this does consider-

Three o'clock P. M .- The Queen has actually lald one egg in our pet Italian Nucleus in the

green honse.

Oct. 22nd—That egg is gone. Oct. 23rd—Friend Dean has been here. He very much doubts our being able to get brood reared ont of season by any artificial means, and fears that confining bees by glass will not work at all. Many bees are now dead under the glass and our weak nuclei is daily getting smaller although they seem to labor with an

industry perfectly natural.

We really begin to think our experiment a failure. We would build a larger enclosure without hesitation if we thought 'twonld answer any better. Dean thinks the farther the glass from the hive, the greater would be the loss. As a part of the bees seem to be perfectly at home and earry syrnp from any part of the room without difficulty we cannot as yet agree with him. We now give them full sun-shine in the morning nutil the temperature reaches about 80°, and then put down the curtain the rest of the day, and the mortality seems less.

Oct. 24th—Gathered up all the dead bees this morning that we may be enabled to see how many now die daily. We found perhaps a quart.

Ten o'clock—"Oh you little yellow busy bodies! Outwitted your 'Poppy,' dldn't yon." We went to let down the curtain and our weak nnelei seemed so very industrious that we took a further look. The Queen and most of the bees had gone over to one side of the hive where we had not looked and actually had a elaster of eggs nearly as large as ones hand. Perhaps her Majesty objected to our counting every egg as fast as it was laid. The glass honse may be a success yet. We gave them yesterday some basswood honey for a change.

Oct. 26th—An interesting point comes in here; these bees have no pollen in their combs that we can discover. To-day is the third day since the eggs were laid, but none have hatched into larvæ. If our former deductions have been correct they must work on the meal or

there can be no larvæ.

there can be no larvæ.

After dinner—How many of our readers can realize
the joy we felt at finding just one little bee at work on
the meal when wo went home to dinner? Of course
it went strait to the nucleus when laden. After dinner
two more were at work and although they each averaged a load, say, every ten minutes, scarcely a trace of
It could be found in the cells at 2 o'clock. Are we not
right in thinking it was quickly taken into the stomachs of the mursing bees to be changed into tood tolarvæ and that we shall find larvæ also, to-morrow or
day after?

Oct. 27th—Sure enough we have larvæ well supplied with its mifky food, and are so far along in the work of rearing bees entirely in an artificial temperature.

Oct. 28th—Just before going to press—Four of the five hives have eggs and brood and every thing seems thrity except the number of bees (perhaps 200 daily) that ify against the glass and fall on the ground with distended bodies, and die. We should very much like to know how many dead bees were found in Mr. Bidwelf's not beds in the spring. In our next we hope to be able to tell you of perfect young bees reared entirely on artificial supplies.

# Gleanings in Bee Culture,

Published Monthly,

A. I. ROOT & CO.,

EDITORS AND PROPRIETORS

MEDINA. OHIO.

Terms: 75e. Per Annum. [Including Postage.] For Club Rates see Last Page.

### MEDINA, NOV. 1, 1874.

WE have unfortunately mislaid Seth Hoagland's circular in regard to the N. A. B. Convention at Pittsburgh, on the 11th 12th and 13th, but think that to secure the benefit of the hall fare rates granted on most of the R. R's, it is necessary to write first to Mr. II. at Mercer,

---WE have just ree'd the semi-monthly German Bienen Zeitung for the year 1874. At present it is of just about as much value to us as a work on astronomy to Blue Eyes—we have a "big time" looking at the pictures. Germans use hives and implements as well made as the plates that represent them, perhaps their American consins can with profit learn more than one lesson from them.

WIND reader, if you are in any way interested in Bees or Honey, we will with pleasure send you a sample copy of our Monthly "GLEANINGS IN BER CULTURE." Simply write your address plainly on a postal card and address.

A. f. ROOT & Co., Medina, Ohio.

[Any Periodical giving this one insertion and sending us marked copy will receive Gleanings one year.]

As we are paying considerable money for the insertion of above advertisement in various papers, of course we shall consider it a favor to have you give us the names of bee-keepers that you give us the names of bee-keepers that you wish to take it. Don't who you think might wish to take it. send any stamps; simply put their address plainly on a postal card.

While we are much obliged to the Ed. of B. K. M. for his pleasant mention of our Lithograph, we can hardly lorgive him for not looking at it closely enough to discover that it really is a Hexagonal Apiary, having the whole number of hives arranged so that each one is the center of six others, at equal distances from it and from each other. Had he been in the habit of extracting honey each scason, earrying the combs into the extracting house and then back to the hives, he certainly could not have failed to note that the neurer the hives were located to this room, the less would be the labor; and hence would not have made the

remark that he could "see no reason why an Apiary exactly square, is not quite as good and convenient as one hexagonal in shape,' that "bees build their combs hexagonal for very good reasons"—"which, however good reasons"---"which, however, would be very poor arguments for having an Apiary in that shape."

If we grant that 6 feet, or any other distance for that matter, is as close as hives should be placed, can we not get them much nearer on the plan mentioned, than if placed in the form of a square? Is not economy of steps as important to us, as is economy of wax and labor

to the bees?

### "FLYING BEES UNDER GLASS."

"FLYING BEES UNDER GLASS."

[REND NOVICE:—I see in Oct. GLEANINGS that you allude to Mr. Bidwell's experiments in wintering bees; also make some criticisms in reference thereto. Will you please allow me space in Nov. GLEANINGS, for an explanation.

At the spring session of the Michigan Bee-Keeper's Association, held at Kalamazoo, in May last, I was, in absence of our Secretary Mr. Frank Benton, elected Sec. pro lem, and took charge of all papers presented at that meeting. In making out the report of the proceedings for B. K. M. (which was condensed as much as possible consistent with perspicalty of statement), we purposely refrained from making any extended remarks in reference to Mr. Bidwell's paper, inasmuch as the paper itself, was to be published. Being requested by their several anthors to return the original manuscript to them, we copied the different papers and forwarded the same to Mr. King from time to time for publication. Owing to ill health, which almost entirely precluded mental labor on our part during the sammer, we deferred sending a copy of Mr. Bidwell's paper until about the tenth of August, for the Sept. No., supposing it seasonable at that time; not even dreaming that any one wished to try the "experiment" of placing bees under glass, with the mercury indicating 100° in the shade.

Now about suppressing Mr. Bidwell's P. O. address, Mr. Bidwell is extensively engaged in norticultural as well as apistical pursuits, and being corresponding Sec. of the South Haven Pomological Society, has very little time (and possibly—inclination) for answering luquiries relative to bee culture. He has repeatedly stated that he intended to write nothing more about bees, having bad 'nhis say' on that subject. We therefore did not feel at liberty to give his address, and so withheld it. But in view of what has been sald, we'll simply say that he resides only a short distance from the writer, and receives his mail at—South Haven, Michigan.

We are well acqualited with Mr. B. and know him to be perfectly reliable a

Michigan.

We are well acquainted with Mr. B. and know him to be perfectly reliable and trustworthy. Moreover we are conversant with his experiments, and feel considers that the value of fins method has not been overrated. For the benefit of GLEANING's readers, we submit the following in reference thereto.

The "hot-beds" alluded to in Mr. B's paper, were excavations in dry sandy soil (about two feel in depth) sloping gently to the south. Boxes made of 1½ inch plank, and some 15 inches in width, were set over these and banked up with earth. Each "bed" was covered by four sash, 386 feet, and straw was senttered over the bottom of the pit to keep the bees from alighting on the earth. The sun was the sole source of licat.

alighting on the earth. The sun was the sole scale of heat.

The bees were all put into a honse cellar in Nov., but becoming measy in Jan., were carried out and placed in these "hot-beds" for a fly. Many of them were left there until a "cold snap" in March, when they were returned to the cellar, as the "beds" were not made sufficiently tight to exclude a great degree of cold. Mr. B. flew 16 stocks at once in a single bed, as set forth in his paper, and encountered no difficulty in having all bees return to their respective hives. And finally, his bees that flew under glass, all came through to May in good condition, and have stored a large amount of surplus honcy the present season.

Heinbert A. Burch, South Hayen, Mich.

FRIEND NOVICE:—Yours of 3rd, at hand. I had a temperature as high as 85° to 90° when the bees flew. I think the bees all returned to their proper fives that returned at all. I had only one tier of hives. Ch! yes, you could have seen them go out an I by

around and never touch the glass at all, vold, and go right back. I believe Mr. Bidwell tells the exact trath about it. I thought I could "glean" a knowledge of the fact that, that plan could be made a success, from what I saw during my experiment. I think it will become practical only when a volding room is "kinder" attached to the wintering house. A glass over the hives Is incomparably better than one in front, as a window for instance.

JAMES HEDDON, Dowagiae, Mich. Oct. 6th, 1874.

We think enough has been done to make it pretty certain that dysentery can be arrested, if not entirely cured by this means. Mr. Burch has given all needful directions for making the pits unless it be that they must be most thoroughly drained; if not naturally then artificially. The sash 3x6 feet can be purchased in Cleveland of B. H. Stair & Co. for \$1.25 each in quantities, perhaps a little more singly. The glass can be purchased of B. L. Fahenstock, who advertises in this No., for \$3.50 per box of 90 lights, net; a little less for large quantities. This is second quality glass but we presume it is just as good for this purpose. Each sash will require 28 lights and the expense of material will therefore be not far from \$2.50 per sash, or \$10.00 for a 6x12 bed such as were used by Mr. Bidwell. Will Mr. Bnrch please accept thanks for the information given.

### REPORT FROM ADAM GRIMM.

HITOR GLEANINGS:—Yesterday I shipped the second ear load of honey from my this year's crop with some few small lots from other becraisers. This cleans me all out and since I get a little rop wild some tea same raisers. This cleans me all out and since I get a little more fine now, I comply with your request to report my this year's bee business.

I had after the spring's sale, and a loss of 48 during winter and spring, 700 colonies left.

From them I get of box honey

And of extracted, net weight

Table

25219 Add to this amount in unfinished boxes 600 Previously sold and given away

Making a sum total of Or an average of about 21 lbs, box honey, and 16 extracted. The extracted honey however was all from 70 lives making 14 about 147½ lbs, as an average from each of these.

ach of these.

It will be natural for your readers to inquire, to whom I sold all my honey, and what price I got. Well. I contracted the whole amount to Mrs. S. E. Spaids, New York, who bought all my honey last year and paid me for it, as agreed. The price I am promised is 25c per Ib. net weight, for white and yellow honey in the comb. 15c for bnek wheat honey, and 12c for extracted. This is a low price, but I am satisfied, since I got rid of that large lot of honey at once.

My bees, which increased to 115s colonies, are in very good condition to go into winter quarters and if they should go through the winter and spring in good condition I will have 300 or 400 to spare or can slock some more apiaries. Bees are considered very good and safe property here and sold at full prices if offered for sale. I have gone into banking, but cannot think of neglecting my bees. I have not been at the bank more than one week's line in five months. Bee business is so much more profitable that I cannot get a notion yet to leave it.

ADAM GRIMM, Jefferson, Wis. Oct. 21st, 1874.

ADAM GRIMM, Jefferson, Wls. Oct. 21st, 1874.

Shall we not have to acknowledge friend Grimm with his 1158 colonies, the largest beckeeper in the world? and judging from his yearly reports, is he not also as a rule the most successful?

# HONEY COLUMN.

R. A. I. ROOT:—What is your best figures for Honey in, say from 2 to 5000 lb. lots? Give us your closest price for cash.
BARBER & STOPT, No's 32 & 34 Main St. Cincinnati, O.

We are happy to say that Messrs. Barber & Stont are both prompt and reliable.

MR. ROOT, Dear Sir:—Through the assistance of your and other Bee Journals, and my old acquaintances, I have already procured 73000 lbs. of honey and hope to be able to handle 50000 lbs. more fills season.

S. E. Spaids, N. Y. Chy.

As an Item of interest, I will say that I have just ree'd from a St. Lonis Dealer the generous offer of 12% for Pure Linden Honey, ext'd, for which I have a home market at 25c, and a demand for more than I can furnish, from my hives.

E. M. HAYHURST, St. Clair, Mo.

Could I buy Honey Jars cheaper of the manufacturers than of dealers here? If I can could you send me the address of a manufacturer?
I have 4 barrels of Llun honey, I would like to get 15c for it.
ROBERT BIELEY, Colfax, Iowa.

You can buy cheaper of the manufacturers usually, but you will have to take a whole case. B. L. Fahenstock whose advertisement appears this month is a manufacturer. Send to him for a circular.

To your readers please say that I do not buy honey at all, but if they will send me a sample (say 2 or 3 onnee vial) I will sell it for them where they will get their money on the delivery of their honey here. There is no demand here at present, or at least very little and I now advise holding for a short time. My object has been to keep up the price of extending for oney. Good nice comb in good shape will bring 30c very readily here now. readily here now.

W. G. SMITH, 419 Main St. St. Louis.

DEAR NOVICE:—I have about 1500 lbs, white clover ext'd honey, put up in 14 gallon casks, well waxed, a choice article of honey. What shall I do with it? I cau get 16e in Milwaukee, but Ireight and commission out 500 leaves me only, 15e, a poor price. I will get about 500 lbs, golden rod and buckwheat enough to stock the local market here, with what Is raised by others. Box honey sells readily at 25e, and I would like to realize 17 or 18e clear, or I am afraid I will get crowed over. Some of my neighbors already prophesy sour honey and no sale. The honey weighs 12 lbs, per gal., so there's no danger of souring. I will tell you how I got It some time.

R. L. Juiner, Wyoming, Wis.

At present the market price for light honey seems to be only about 15 or 16c. As this price is for delivery in the principal cities it is generally best to sell near home. The figures you mention for comb honey are probably retail. Does not extracted honey sell at retail for nearly as much? In '71 we sold our whole crop for 12c, in 72, 13c, and last season we sold 4 burrels for 15, 16, 18 and 20c respectively, and could have sold all for 20 had we kept it until Feb., as we did the last barrel. Although we are not justified in thinking it will bring any more in Feb. than it does now, yet we should be in no harry about selling at less than 16 unless we needed the money badly. If the bees "jest wouldn't die" we should be quite content to raise honey for 12 or 13c.

### Humbugs and Swindles Pertaining to Bee Culture.

(We respectfully solicit the aid of our friends in conducting this department, and would consider it a favor to have them send in all circulars that have a deceptive appearance. The greatest care will be at all times maintained to prevent injustice being done any one.1

LTHOUGH we might prefer to dispense, for all time to come with this department, we fear public safety as well as our own, demands that we should mention the names of a few who are hindering the cause of bec-culture.

Before so doing, and while thanking our friends for the aid they have given us, we would remark that the mere fact of differences in opinion in regard to a business transaction is by uo means sufficient ground for publicly showing up either of the parties. Still, we are always glad to have such transactions submitted to us, as it gives us an opportunity of judging better of the business habits of those advertising largely. Where an advertiser receives money and then refuses to respond in any shape or manner, and also refuses to grant us any explanation, we have very good grounds for suspecting fraud.

In our April No. we gave a letter from Mr. J. P. Parker, but omitted the name of the firm to whom he sent the \$30.00. This firm was Gray & Winder of Cincinnati. We have been waiting since April to give them a chance, but as their letters, or rather Mr. Winder's letters only propose to pay it sometime, if friend P. will be "quiet and gentlemanly about it," we presume it is \$30.00 lost. Mr. Winder in a letter to us recently, said if the transaction were published he would never pay it at all, and as he probably would not any how, what is to be gained by keeping quiet? True, he might go on and get other peoples' hard earned \$30.00, and then tell them the same, but this is the part we most decidedly object to. The letters we receive from these delinqueuts have got to be an old story, and we have become so har-dened that we don't mind it a bit when told we are "meddling," and that our assistance and advice has not been asked etc., etc. We are sometimes gravely informed that great numbers of similar complaints are made of us but that they, out of a kind regard let it drop, etc. Now this is a mistaken kindness certainly, for if any one has been guilty of such a piece of folly as making complaints of us, instead of to us, the only way we know of is to tell us about it. Put it in print certainly if thought advisable. We havon't the least objection to having any part of our business fully ventilated at anytime.

D. L. Adair has been complained of for a long time. The B. K. M. thinks proper to give one of the complaints, omitting name 'tis true, but his contradictory mention in his advertisements of the long looked for Dec. No. is so familiar to most readers of the Journals, that few will fail to know who is meant. If the complaints were only for money sent for Annals, we might think that he would sometime send it, but when he advertises to receive money for Gleanings and keeps that too, without giving us the slightest notice, we have no

choice really but to speak out.

Before crediting appearances, we have writteu him repeatedly, and even appealed to him in print to come forward and assure us that he meant sometime to settle all things honorably, but to all, he preserves a grand indifference, and were it not that drafts, registered letters, etc., are readily taken care of when addressed to him we might think yet with B. K. M. that there is some mistake. Titles and education are a fine thing, but their possessor is no more exensable for approplating other peoples money, than any one else.

"BEE STINGS CURED, WITHOUT COST. NO MORE PAIN OR SWELLING. THIS IS A NEW DISCOV-

ERY," has been for some time past advertised by the "Busy Bec" mar, but it did eost us 10c. We know we "got bit" \$2.00 worth on the Ambrosial Honey, sometime ago, but we thought perhaps he had become a better man now. "Nary better." The "Ambrosial" is advertised with the same old, oily string of falsehoods (see page 85, Vol. 1) and the "Great Discovery" is as follows:

THE BUSY BEE SUPPLEMENT.

BEE STINGS-Are dreaded by nearly every one, on account of the pain and swelling which follow, from

account of the pain and swelling which follow, from the poison injected.

How cureD—in severe cases, the person should drink freely of whiskey or some strong alcoholic drink, till he feels its effects; this will prevent all danger and further swelling.

A NEW DISCOVERY—Immediately after receiving a sting, take some leaves of peppermint, or catmint, for their allies, crush them with the teeth and add some saliva; then rub the wounded part briskly for about five minutes; this will remove the pain and prevent inflammation, as by this process the poison is all removed.

The above is the whole contents of this great Supplement to be given away, (for ten cents) except a few advertisements; among them is one of "Cheap and Artistic Printing." All we have to say is that if the supplement is a sample, we would respectfully prefer "t'other kind."

We are amazed that this H. Herman Flick should find people enough in this age of Journals, to support him with bis Ambrosial and Bee sting cure. We certainly shall "stand by

About the Cure. Will all those who persist in believing in the efficacy of these cures, (we mean to include the German Bee Sting Cure and all the stuff "put in bottles" for that purpose) please test them by the method proposed by Quinby, viz., try one sting with the "medieine" and one with nothing? Don't make up your mind from a single experiment, but try half a dozen times, first with, and then without, and our word for it, (unless you have some bottles to sell) you will conclude if there is any difference, the sting you rub and "fass" with most, will be the worst. When you can learn 'tis best to pay no attention to stings, but to go on with your work, you will have little trouble.

We agree with A. B. J. in saying that not one letter in tenthousand is lost by mail if properly directed, If we except perhaps some of the Southern states where postal facilities have not as yet reached the perfection they have here. Now for a person to claim that letters must have been lost in the mails, as an excuse, and also to make this plea to a dozen different correspondents at about the same time, is sheer nonsense. We have yet to hear of a postal card being lost in the mails.

P. S.—About that Whiskey antidote. Since the "Crusaders" closed the saloons of Medina, we fear there would be a serious rush to the bee hives for the sole purpose of being stung were such treatment reccommended here.

We to-day, Oct. 22nd, get a new circular from Mitchell in his usual "Spread Eagle" style, offering (rights!) the best hive extant at a cost not exceeding 25 to 50e, and other things in proportion. It appears that he is located this time near by—Defiance, O—but the circular comes all the way from P. M. Peterbangh, San Gabriel, Cal. Can be find more victims?

# Heads of Grain, FROM DIFFERENT FIELDS.

The BOOKS teach us that ALL bees cut THEMSELVES out of their cells.

EAR NOVICE Et at:—In the fall three years back, may first year with bees, the following came under my observation: The 16th Sept. 71, I had one Italian stock, on opening this hive I found several Queen cells. There were two on one comb, one near each side bar. This comb with the two Queen cells on it, I put into another hive, added to it two or three combs of capped brood and honey and put in over a quart of bees from parent hive (parent hive very fall of bees). Both the Queen cells were apped when transferred to the empty hive. Seven days after, on opening the five, without smoke, found several bees cutting away on one of the Queen cells. On dispersing the bees I found a hole cut into the cell about 4 of an luch above the small end. I distinctly saw the white immature Queen in the cell, and with a sharp knile I carefully enlarged the opening, so as not to wound the hunate. I immediately replaced the comb and closed the hive. Two hours after I reopened the hive, found the Queen on bottom-board, the bees were trying to put her out, Indeed did put her out of the hive. I now examined the remaining Queen cell, this was intact, there had been no intermedding with It by the bees. This was Saturday, next day being the Sabbath I did not open the hive. Monday about 6 o'clock A. M. on opening the hive, the Queen was out on the comb, a very pretty well matured Queen. Now the last cell was cut on the side, as I saw the bees entiling the first cell) and there was surely nothing like the smallest hole in the lower end. I examined with all possible care and had others to EAR NOVICE Et al:-In the fall three years I examined with all possible care and had others to examine. I am satisfied that both Queens were cut out by the workers. Why did they do it? what was their object? Lexington, Texas. Sept. 26th, 1874.

The occurrence mentioned is not infrequent. Although we cannot positively say why they do thus, we would suggest that it is the work of mischievious young bees who fluding no unscaled brood to care for, have "nothing else to do." Had they been furnished with eggs occasionally, they would doubtless have been busy otherwise, and so felt no inclination to meddle with the Queen cells. At a certain age, they seem to be as full of mischief as "young puppies," and if they can't build comb, nurse themselves by "tearing down some-thing"; if the Queen thus rudely exposed is old enough to live, all is well, otherwise they pick the white soft chrysalis ont of the cell, piceemeal, with a most provoking unconcern and disregard of consequences. Young bees, like children must have something to do; if it eannot be useful it should at least be harmless or they will assuredly be in mischief of some

l am making bee-keeping a specialty, commenced aveyears ago with two box lives and Black bees. Now I have 80 colonies of as fine Italians as can be found anywhere, have had many difficulties and troubles and have tried several different kinds of hives but have something now that I think I can tle lives but have something now that I think I can the to. Rec'd a choice Imported Queen from Ch. Dadant & Son, this year. My stock is all raised from Imported stock and if nothing happens will be in the Queen trade in a small way another year. Have taken about 1000 lbs. of honey dualing the season, 3000 lbs. since the 26th of Ang. I had some gather over 150 lbs. between the 26th of Ang. I had some gather over 150 lbs. between the 26th of Ang. I had some gather over 150 lbs. between the 26th of Ang. I had some gather over 150 lbs. between the 26th of Ang. I had some gather over 150 lbs. between the 26th of Ang. I had some gather over 150 lbs. between the 26th of Ang. I had some gather over 150 lbs. between the 26th of Ang. I had some gather over 150 lbs. between the 26th of Ang. I had some gather are covered with it. My bees worked well on Alsike and Red clover, but when the Cueumber commenced blooming they worked well on Alsike and Red clover, but when the Cueumber commenced blooming they worked on it. Another good plant for honey is a variety of Spanish Needle that grows in abundance in cornelidad sepecially in places too wet for corn. My bees cross the Mississippi river and gather a great deal of honey from it in Aug. and Sept. The honey is a beautiful golden color. I will send you a sample the first

time I am at a town where there is an express office thue I am at a town where there is an express office. My bees have always wintered on their natural stores have never lost a colony except from starvation. The late honey is so thick I could not throw it out if I wanted to. I wintered them in cellar of my house. I have made many observations on bees and honey plants but am a poor haut to write them.

A lover of bees.

Door Plain, III Sout 28th 1874

A lover of bees. Deer Plain, Ill. Sept. 28th, 1874.

Shall be very glad of your assistance in the Queen trade friend W. We hope no one will be deterred from writing us because they think themselves poor hands at telling what they have observed. We are all "at home" in this department.

Now I am only a beginner in the business, having only four colonies, three Greys and one Italian. In passing them for the last week or two I have noticed a peculiar sour smell among them. As as they were working finely. I attributed the smell to the bloom they were working on; but the seent increased, and yesterday I found that it was the Italian colony, so i opened the hive and found it wet inside, from sweat I suppose, drops of water were on the lid and running down the side. The comb seemed to be damp and had a sour smell. On opening all the hives this morning I found two others in the same fix, except not so sour. I want to know the best plan to pursuo in this ease. I am using the Buckeye hive and It has no ventilators. I have attributed the cause of the sweat to that. Am I right? I intend ventilating them by boring a hole near the top and covering it with whre cloth. T. B. PARKER, Go'dsboro, N. C. Oct. 6th, 1874. We think the trouble is that they are getting

We think the trouble is that they are getting very thin honey or syrup from some source, so thin in fact that it sours before they can ripen it. More ventilation will probably help the matter, but to make sure, we would remove the cover entirely and let the sun shine directly on the bees and combs; this will dry them out and assist them in getting everything sweet and clean. We have had a similar trouble in feeding weak colonies a large amount of very thin syrup.

Find out where they get these stores if you can, and report. The superior industry of the Italians sufficiently accounts for their being the worst affected. Nothing can equal the benefit of direct sunshine, for restoring either plants or animals to vigor and health.

And now a word on the "Iron weed" experiment. I moved two colonies on the morning of the 5th of Ang., after extracting all the honey, to the prairie reterred to four miles off. By 90 clock A. M. they were as busy as though they had not been disturbed, and by the 15th they had every thing filled. Having a fine Queen I wanted to take care of, I took a couple of frames of young bees, brood etc., from these two hives, and put into n new hive, eaged the Queen and put her in with them. In 36 hours I let her out, and now they are a good colony. I added other frames of brood from the other colonies however. Now I have three strong colonies that I have no doubt will winter safely. I did not extract any of this honey to test its quality. Next fall I propose to ntilize this prairie to the extent of a barrel of honey, the season tavaring.

This season has been considered a poor one for honey as every person here depends upon box honey for their supply. But with an extractor it would have been a tolerably fair one, the Basswood vielding abundantly.

Wm. M. Cake.

West Independence, O. Oct. 7th, 1874.

Thanks for the item. We think you have made a move in the right direction friend C. We have often admired the Iron weed (Vernonia) but have had no chance to try the honey. May we petition for a jar of it if you succeed next season?

Can you give me one or two names of parties who will pay the best price, cash, for box honey of excellent quality—in 16 lb. boxes? We have about 100 lbs of each 1400 lbs. of such.

We have Increased this senson from 27 to 50 colonies, the 27 have made the honey above, besides 350 lbs. ex-

tracted. One colony gave 204 lbs. box honey and a strong artificial swarm. We have no losses out-doors In winter, no disease whatever. The honey is from Blue Thistle and White Clover-of the former there are fundreds of acres near us.

O. M. Brown. are fundreds of acres near us. Winchester, Va. Sept. 29th, 1874.

Those who advertise for honey in our colnmus, will we think take all you can produce. The "Blue Thistle" must be of considerable value, especially if it furnishes honey four months in the year. Even if it is a bad weed, so long as Virginia farmers continue to grow it, we hope the bee-keepers of that section will endeavor to ntilize the honey it produces, as far as possible.

FRIEND NOVICE:—I have thought for some time I would send you a report of this season's operations, and as we have got through extracting and looking over the bees preparatory to winter, have now got at it. We (I say we, for my wife and I are in company in this business, she does the work while I superintend, being disabled,) have 52 colonies, just what we had one year ago this time, and twelve more, than five months ago. We pat upper stories on 34 of our Langstroth hives, put two colonies in Long Idea hives and four at making box honey. When white clover had done blossoming we had just one box of honey (6 lbs.), and that was over haif ful from the year before. They did hetter on buckwheat however, for we have about 150 lbs. now. The thirty six we extracted from, brought in about 4250 lbs. and all have enough to winter on, perhaps more. From the clovers we got 1300 lbs., we have several acres of Alsike, and it is splendld for bees, but Calnip for the amount of honey per plant, beats anything I ever saw. If all the eatip within range of our bees were gathered together, I don't think it would cover more than an acre of ground; but be that as it may, from what there was, our bees gathered sixty gallous that weighs over 12 lbs. to the gallon. I carry a little of the seed in my pocket all the time and when I see waste places on my farm that I think might as well be raising some loney as not, I seatter a pinch of seed. It wilf grow in fence corners or brush heaps first rate, and we are going to make such places useful. If it will pay to raise any plant for bees exclusively I think that plant is catnip—lawe so much faith in it that I shall try some next year at any rate.

The clovers are good, and catnip is good, but for a

is catalip—have so much faith in it that I shall try some next year at any rate.

The clovers are good, and catalip is good, but for a sure thing give me buckwheat. It has not failed to give a good crop of honey for seven years in succession to my personal knowledge. The honey crop is more certain than the seed; this year both ure good. We have on hand now over a ton of honey from that source, and they gathered all their winter supplies from it, which would be about 1500 lbs. more. Buckwheat honey is dark colored and is not worth quite as much as clover, mine is for sale at 12 cts. per lb. here, barrels included. Catalip 14c. It is as light colored as clover but not of so good a flavor, at least in our opinion.

ion.

And now Mr. Novice if you think we have done well, take a good share of the credit to yourself, for I verily believe if it had not been for your so persistently urging bee-keepers to extract their houey we would have been "fooling with box honey" yet.

J. L. WOLFENDEN, Adams, Wis. Oct. 13th, 1874.

May continued prosperity be the lot of both you and your wife friend W. To you in your misfortune 'twould seem that she is a "help-May we take the liberty to kindmeet" truly. ly suggest that she in her ambition be not allowed to do too much of the heavy work in the Apiary. A few men in our land show the effects of too much hard work, but far greater is the number of wives and mothers that even at an age that should be the prime of life, show unmistakable evidences of too much care, and alas too often also, the effects of work physically beyond their strength. Who has not occasionally contrasted the happy girl of 20, with the worn out woman of 40 or 50.

We should really like to hear from Mrs. W., for we feel sure from the way you write that she too has had a pleasant summer amid the bees. Scatter the catnip seed by all means. We think it can never prove a troublesome weed in any event.

of course we can't help admiring the way in whire you keep things lively about that aplary of yours (as we look in from month to month, we are foreibly reminded of looking in on a hive of busy workers, at the confinencement of the warm senson; we never find things h statin quo, as the latins say, but find that great changes are made even in three days. We are sorry you have got elder mixed with your winter feed, but if you had enough of those combs scaled up in Angust with sngar syrup, you will be all right yet. We think we can winter almost anything but from your description we don't want any elder in our winter stores.

J. P. MOORE, Binghampton, N. Y. Oct. 12th, 1874.

We thank you for your good opinion friend M., but we can hardly feel that we deserve very much credit, when so many are going way at ead of us in increase of stock as well as surplus honey. We try to console ourselves by thinking if we do remain down towards towards "the foot of class" we probably shall be nearer the mass of our readers than if we were side by side with you and Doolittle, who get more box honey than we do extracted.

Don't know but I ought to say something about bees if it has been a poor senson for honey, in consequence of the most severe drouth ever known, even by the "oldest inhabitant." From 21 colonies have taken 1700 lbs. honey and increased to 45 colonies.

HENRY PALMER, Hart, Mich.

Will not clean old rag carpets, if whole, do for bee quilts? say two thicknesses—a strip of quilt might be put around the edges so that it would tuck down better and make tight, what think ye? Wesley Brown, Homer, N. Y. Oct. 14th. 1874.

Old earpet does very well but they are more apt to be so hard as to kill bees, and in tearing them loose from the frames the propolis sometimes pulls out pieces that may thus get into the honey. The requisite qualities in a quilt seem to be softness, pliability, porosity and strength. We have made some experiments with various fabrics but none seem to answer all purposes so well as those we have described. Coarse woolen would many times do were it not for the fibres pulling out and making the hive untidy, to say nothing of its getting into the honey.

My report of Apiary is estimated at 2500 lbs. comb. 500 lbs. ext'd honey, and 66 swarms natural and artificial. Started to winter 48 hives, lost in winter, one in spring, one, leaving me 46 for the above result.

J. L. DAVIS, Delhi, Mich. Oct. 10th, 1874.

Now I am an old man verging on 72 and have, all my days I may say, kept bees in different kinds of box hives. I am now trying frame hives; my frames are 12 inches deep by 16½ long, but the thing that bothers me is, the bees work their comb across the frames and also stick them to side of hive.

JOHN DAWSON, Pontiac, Mich. Aug. 23rd, 1871.

Have all combs built between two good ones and also put a finished comb next the side of the hive, if they persist in it. Some colonies seem much more disposed than others to build

I think we shall have to put GLEANINGS on the list of the tardy—I have not rec'd the Oct. No. yet J. PRATT, Mallet Creek, O. Oct. 13th, 1874.

comb irregularly.

Now friend P., and several others, we hereby protest against being put on any such list, for we have mailed every No. so far, promptly on or before the 30th of each month, and we beg you in future to conclude that the Post Office Dep't has failed, that the cars are off the track or that Uucle Sam has suspended business, but do not we implore you, intimate that we have been so shiftless as to fail to mail (Leanings as heretofore. Should Novice get sick, you can depend upon it that P. G. or some one else will mail something, if it be no more than a printed postal card informing you what's the matter. In other words we pledge ourselves to let you hear something from us

the first of every month.

If you wish to "stir up" Novice, ask him on a "postal" if any GLEANINGS was sent out for Oct. or April as the ease might be, "cause why" you didn't get any. That they are promptly printed we are sure of but to avoid making a single mistake in mailing, we find more diffi-cult for we oceasionally do bluuder; but by far the greatest source of mischief is the failure of subscribers to give the Counties. If you don't get every paper at the usual time, don't fail to drop a postal, and we will with pleasure make it right no matter who is to blame, but please don't ask any more "if we printed any.

I thought some of trying Bidwell's plan of wintering. For a beginner, have had excellent success during the summer—increasing from 4 stocks (purchased of A. Grimm) to 12 Simplicities. Most of them contain but 8 Irames. Purchased 20, so they have built me some 59 combs. Took very little honey (ext'd) as my alm was increase. Am fearful for winter, but will make all necessary provision for the safety of the valued little fellows.

Gro 44: SCATT, Dubugue Love, Oct 14th, 1874

GEO. G. SCOTT, Dubuque, Iowa, Oct. 14th, 1874.

We are glad to know that Independence, lowa, can boast of pretty girls, as well as the rest of the world. We were made aware of the fact by a Stereoscopic view of his Apiary, sent us by E. A. Sheldon. In going into an Apiary we always see the girls first if there are any—those in the view may be all married women for anght we know but that don't make a particle of difference; they have as good a right to be pretty as any body else. And now we think of it bee-keeper's wives are generally remarkably pretty women, that is when they are not afraid of the bees, if they are, we never see them-as we were saying we always see the ladies first and the bee hives next, then if there's a proprietor we generally make his acquaintance. In the above picture the chaps that take our eye are the ones in their shirt sleeves. A bee-keeper certainly wants his coat off when among the bees. The old gentleman reading his paper in his arm chair, as well as others scattered among the hives throughout the Apiary seem perfectly unconscious that bees can sting, and we presume friend Sheldon has so cared for them that such fears are entirely innecessary. We see extra width hives as well as hives of only half the ordinary width, the latter presumably for Queen rearing, and the small trees planted so as to furnish a partial shade, give a very pretty effect to the whole Apiary. As our friend uses the extractor we venture to say that his labors would be considerably lessened if his hives were grouped at more regular distances; also we would want the grass kept down a little more in front of the hives. However, if he gets a large yield of honey as it is, perhaps it is just as well.

Would the warmth of the sun's rays prevent dampness and mouldy combs in the cold frame arrangement? If so I should say the cold frame is just what we have been looking for.

Jos. A. SAVAGE, Cinclinuati, O. Oct. 21st, 1874.

We think it will without doubt. Our house keeps everything as dry as it well can be, and damp or mouldy combs dry out in the warm sun and become sweet with the greatest facility. Our only trouble at present is to have the bees get back into their hives. Very likely Mr. Bidwell's plan of having the sash only 3 or 4 feet from the ground would insure the bees all getting back better, but that they should all find their own hives seems to us very improbable.

What is your advice in case bees have no pollen in their bives? Will feeding Rye flour during winter when they fly out be sufficient?

W. F. COATS, Columbus, Ind.

We hardly know that we have any advice to offer at present. Bees will not work on the meal in the winter unless we have weather quite warm and pleasant; such as we usually have here in March or April. We have known them however, to work on meal briskly in Feb., but seasons permitting much of it are unusual. If we could make the plan mentioned last mouth, of getting them to earry in meal under glass, work, we would be all right. There are plenty of days during March and April which furnish ample sunshine, if we could only keep off the cold winds. Our bees will pay no attention to the meal under the glass at present. We have written Mr. Palmer for further particulars of his experiment.

glass at present. We have written Mr. Palmer for further particulars of his experiment.

DEAR NOVICE:—I wintered 32 hives, lost one in winter and the rest were all in condition to become strong stocks by the end of May. In April we had one day they could fly out in full liberty, the rest were so cold that it was only at mid-day that some ventured to come out; no bees could get at the meal until the first of May and in the whole they did not store five ounces per hive. The Queens were so enclosed that they laid eggs from 4 to 6 in a single cell; in the first weck of May the first pollen was seen, then we had four very fine days; honey and pollen were brought in at a bright rate and the Queens spread in 3 to 4 combs. Pollen was brought in until whole combs were filled with it. To-day, one month later, my bees are worse than two months ago; the old bees are gone, the young bees are more than needed for the brood work, and honey is so scarce that I am feeding every day. Instead of being strong by the first of June they are nearly all weak.

In three of my hives I had Inserted empty combs, the Queens filled them and 1 at once gave three cheers for the new idea hives, but alas, to-day several whole combs are deserted; young larvar are dried up and the Queens remain on one side playing their old April tricks of laying 3 to 5 eggs in a single cell. Instead of pushing the combs apart and inserting empty combs in now contract them, with division board in place etc. With strong stocks and ordinary seasons we know very well what to do, but in a season like this one, we certainly need all our brains and they need be sound. I have two straw hives of Elizabeth's time and those stand best in numbers in flight and welght. I have some fears that we bother too much with our bees, it may be that we would be better off it we prepared the hives at the commencement of the season with good worker combs and let the Queens manage their own affairs. I have lost this far 9 stocks and have 1 very weak ones on hand. What I want to know is h dle and have a laying Queen in each side, in October shall kill one Queen, and winter the rest; if this is not well then I go back to "Elizabeth's time." JOSETH DUFFELER, Wequiock, Wis.

Your experience chimes with our own exactly friend D. If something cannot be done to enable us to rear brood in March and April even during had weather, we certainly cannot accomplish the best results possible.

DEAR NOVICE:—Last year 1 bought two young colonies of hybrids, bringing each hoare in the evening of the day on which it swarmed. One stayed, the other "cut sticks" for the woods, next day. The contented one nearly filled its hive by fail, when 1 took out one frame of honey and equalized the distances between the others, and laying two grooved sticks across them for passages for the bees, put on the quilt, leaving oil the cap, and put them in the cellar. They came out in good condition in the spring, and a large swarm issued on the 18th of June; and supposing that to be glory enough for one year, 1 essayed to destroy all but one of the Queen cells, but found the "sell" to be the other way, as another swarm rushed out in due time, when I again examined all the frames while the swarm hung from a bough, finding several cells more, and thinking it a sure thing this time, returned the swarm to the old hive. But in a day or two a swarm sallied forth somewhat larger than the other, when I gave up "beat" and hived them. They vied with the other colonles in numbers them. They vied with the other colonles in numbers and industry.

on the 18th of July, finding the old hive pretty well silled, I took out the frame which was returned in the spring empty, but now filled with white clover honey, replaced it again empty, and adjusted a set of small frames for surplus, made according to directions of Mr. Burch in B. K. M., of last year. And as the first swarm had almost kept pace with the old one, I placed boxes the same way over that, furnished with pieces of nice comb by way of a gentle hint for the bees, expecting both frames and boxes to be filled with the sweets of clover, as the pastures and road-side were profusely be-decked with its nectar-bearing flowers. It was confidently believed at any rate, as both colonies had already so nearly filled the bodies of their hives, that when Buckwheat burst into bloom the receptacles would no longer remain empty, as

both colonies had already so nearly filled the bodies of their hilves, that when Buckwheat burst into bloom the receptacles would no longer remain empty, as some two acres of that melliferons plant had been sown within 100 rods, while no other bees were nearer than a mile, had but 5 or 6 stands within bee distance. But no signs of labor had appeared in the consecrated receptacles when your Aug. number came to hand containing the following sentence: "If our friend will excuse the liberty, we would advise him to put his surplus receptacles where neither he nor his bees will ever see them more." This had reference to a verdant question of mine about receptacles, and was a severe damper on my faith, but which I find to have been sound advice, as the receptacles are still empty, Sept. 15, and the buckwheat nearly played out; but as what we call Spanish needies—the pest of the corn field—are in full blast and the bees after them, I will let the frames and boxes alone a few days longer, that the bees may remain the party found wanting. The bees have persisted in lonnging about the entrances in large numbers, a few have been moping through the frames and boxes, and I know not how many have been Inside, sanctinoniously "loading around the throne."

Should my bees survive the coming winter, I Intend to transfer the ald colony to a big. Its.

Should my bees survive the coming winter, I intend to transfer the old colony to a hive like those occupied by the young onces, thus having all frames of a uniform size and shape, and send to you for an extractor to match.

STEPHEN YOUNG, Mechanicsville, lowa.

From the dollar Queen I got of you last fall, I have raised 60 Queens the past searon, and each one is a duplicate of its mother, and not one of them produces a black bee, with thousands of black and hybrid drones around. The same Queen produced 126 lbs. of box honey the past season besides. Also add for Adair's special benefit that all her wings are cut close to her body and that she has five legs, as the bees "hugged" her in June so she drew one leg behind her and I cut it off to have it out of the way. Would not take \$25.00 for her to-day.

G. M. DOOLITLE, Borodino, N. Y. Oet. 5th, 1874.

Some of the Journals, (the World especially) seem to have had grave doubts of the possibility of the dollar Queeus proving equal to the higher priced ones, aud considerable pains has been taken to caution the public against them. That Queens hatched by artificial heat would prove fully equal to others, of course we had no means of determining only by experiment; accordingly we have anxiously awaited reports from them. Not a single unfavorable one has come to hand that we know of, and the one mentioned by Mr. Quinby iu Sept. No., as well as the one above, were both hatched in the

Lamp nursery, for we sold no others.

Elghty-eight stocks Italians, all full, from 17, Jure 1st. Every Oncen's wing clipped. Raise Queen-18 soon as she lays, fill up with combs—brood from strong hives—Champion hives.
E. D. GODFREY, Red Oak, lowa.

The above came on half a postal card, but we presume our practical bre-keepers will find it perfectly intelligible. Pretty well done even if there was no surplus, was it not?

C. Wurster of Kleinburg, Ontario, Canada, writes quite a lengthy article detailing his loss of Queens, while extracting, and in spite of various precautious. He says:

I lost one or two Queens from 15 stocks at every operation. I extract every three days; in the midst of a flow of honey giving from 5 to 15 lbs. per hive, per day, this is no small loss as you well know.

We certainly do know, for in our earlier experiments we did lose a few, perhaps three or four in a season, out of 40 colonies. The season after, we made up our mind that this must be remedied, and accordingly, put our hives directly on the ground, cleaned away all grass and turf, and with sawdust, fixed each hive so that no crack or crevice remained that a Queen or young bee could by any mistake crawl into. Since then we have lost almost none at all while extracting, and yet we never see the Queen while handling the combs for this purpose unless by accident. Opening hives when there is a great disposition to rob, is liable to cause demoralization of the colony and even loss of the Queen; so of late we have only worked our extractor when the bees seemed peaceable. When much robbing is going on, you can take it for granted that but little honcy is being gathered, and therefore 'tis as well to give up extracting for the time being.

Friend W. inquires why it is that others say nothing of similar troubles; we opine 'tis because they have their hives arranged as we have mentioned. Having hives very close together, will often result in loss of Queens, simply because in extracting, some bees will crawl into the wrong hive, and attack the Queeu before being aware that their unusual upsetting has chauged their locality.

We have been inclined the past season to deelde that nearly all the parricidal attacks which have been so frequently mentioned in the Journals, have been caused by bees from hives that were placed too near, getting in by mistake, and that the stinging is after all not parrielde.

We remarked this, on finding Queens thus attacked most frequently, where we used double hives with the entrances near each other, and especially where we used wire cloth division boards. We are Inclined to think the trouble with friend W's bees much owing to his having placed his hives too near each other; we judge this because he says the trouble was the same, even when the frame containing the Queen was left in the hive without extracting. With hives arranged as far apart as they are given in the Hexagonal Aplary, we think no such trouble will be experienced.

When they are first set out in the spring, there is quite a tendency for them to get into neighboring hives, and accordingly we frequently hear of bees hugging or killing their

Queens at such seasons.



### DEVOTED EXCLUSIVELY TO BEES AND HONEY

Vol. II.

**DECEMBER 1, 1874.** 

No. XII.

#### HOW TO CONDUCT AN APIARY.

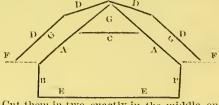
No. 12.

ERY many of our subscribers in different localities write ns they have never lost any bees in winter from any eause other than starvation, and these fortunate people some of them so far ignore the statements coming from their less fortunate brothers, as to declare they don't believe bees ever do die, where they have food in abundance. Other writers have declared that small colonies are the trouble and that they don't believe a colony with plenty of bees and sufficiency of food ever dies whether in-doors or ont. Now although these have never had any personal experience with this serious drawback in wintering, with hives having plenty of bees and ample stores, would it not behoove them to carefully read the reports of the sufferers, and "go slow" in deciding where the whole trouble lies.

Were we to judge solely from our own locality, we should in many things be led to think differently from what we do when we take the reports from the country at large. Although isolated cases seem occasionally to point strongly in favor of out-door wintering, the testimony when summed up is very strongly in favor of housing in a frost proof repository; bees having many times survived when this cared for, in localities where almost all others were swept off. So many bee houses are in use not really frost proof, that good eellars have rather given the best results. We really are not sure that a bee house can be so constructed above ground as to be as perfectly free from change of temperature as those in part, or entirely underground. When we dig down to a certain depth, entirely below the reach of the frost for instance, we find the ground almost of a uniform temperature the year round. This temperature is fortunately between 40 and 45°, in fact, just what we need to keep our bees in that semi-torpid state in which the consumption of honey is reduced to an amount so small that we often hear it stated that they consume none at all; they also seem to awaken in spring from this torpor (when the proper condition is mainfained) almost in the same state so far as in fact used to be all that was required, and age is concerned as when they went in. some contend that 'tis all that is required still, but we think this position will have to be given up. Since our wintering troubles, Quinhy we believe, and some others have suggested that all that is required, is to keep them a little warmer, say from 45 to 50°, or even as high as 550; such a condition for instance as we have

in a cellar directly underneath the family sitting roon. We believe many experiments have decided that this don't do either, and in fact nothing ever has amounted to a "row of pins" if we may be allowed the expression, except fine weather that allowed the bees to fly. All agree without exception that as soon as we have settled warm weather, allowing the bees to fly and gather pollen, all mortality ceases, and even the weakest nuclei, can in June and July be built up to strong colonies. Hence the position that, if bees are perfectly healthy in warm weather, cold must be the cause of the malady.

Onr bee house cost us over \$200.00 and yet it isn't frost proof unless it contains 40 or 50 good colonies; again, if we have several days of quite warm weather, It is impossible to keep it cool enough to have the bees stay in their hives, unless we should carry in lumps of ice as has been recommended. Yet friend Blakeslee says he feels sure he could keep bees safely in his cellar any day in the year, the temperature being nearly the same both winter and summer. Now comes the question; if cellars are better, why not use them? The principal objection we know of is that they are generally remote from the hives and are often inconvenicnt of access, besides they should be kept perfectly dark and this necessitates dividing off an apartment by some kind of a partition-thick paper does very well-and this often encroaches on the space needed for the family vegetables Besides we want our wintering house to serve for a honey room in the summer. In view of all these items we are going to suggest a wintering house built parfly underground, and covered entirely with 18 inches or two feet of dry earth. We have just built such a room as an addition to our small hot house, and the entire expense of it, labor and all, was not one fourth that of our bee house. Where it is necessary to economize it can be made to answer very well for a honey house, and will be nice and cool for summer work. Get five pieces of 4x4 pine or hemlock scantling, 16 feet long.



Cut them in two exactly in the middle, on a bevel, so that their ends will fit together rafter fashion at the tops while the boftoms are just 12 feet apart. In the accompanying diagram

which is drawn on a scale of 1% inch to the foot, A, A, are these rafters resting on posts B, B, made almost 3 feet long. These latter should be sharpened and driven into the floor of our room about 6 inches, this will leave them 2½ feet high on the inside, and as they are to be level with the general average of the ground F, F, on the ontside, our room is supposed to set in the ground about 2½ feet. C, is a piece of 2x4 scantling strongly spiked across A, A, just high enough up to allow the proprietor to walk under, mless we can afford to make a little extra provision for visitors, a matter depending somewhat on our resources. When this is done, get some cheap pine boards (onrs cost only \$12.00 per M.) and nail on the inside, at both top and sides. Use 10 penny nails and nail strong. When this is done put earth overhead and at the sides, G, G, G, at least 18 inches thick. Then cover all with a shingled or board roof something like D, D, D, D. If short bits of boards are nailed from the rafters A, to the rafters D, at frequent in-tervals, the whole structure will have something the strength of an arched bridge. dimensions of the room inside on the floor E, E, are 10x13 feet; it will hold 100 ordinary hives. In ease the Bldwell process proves a sneess, and it bids fair to prove so, you can at any future time add on a similar structure to either the east or west end, having the sonth roof all glass. This is to be used as a voiding room when colonies become diseased before the weather is suitable to put them ont.

We need hardly add that provision must be made to keep such a room perfectly dry. If the land lies in such a way as to render it likely that water will soak under the walls, it will be necessary to cut a deep ditch all around it and to provide a good underdrain.

it, and to provide a good underdrain.

P. S.—We would nail the boards on the inside to prevent bumping our heads against the rafters. The whole expense of materials need not exceed \$10.00, and not more than \$15.00 more, if the apartment with glass be added. Double doors afford access, and the outside one is to be made like an outside cellar door.

In our Nov. No. of last year we mentioned having prepared nine colonies for winter on their summer stands. These belonged to Dr. J. H. Salisbury, Cleveland, O. As we remarked then, we did nothing but to equalize the stores of some, removing all honey and combs ni upper stories, and covering the frames with nothing but their accustomed quilts, making no provision at all for any more ventilation than is afforded under the cover of the Simplicity hives. These bees all wintered fluely. No dead bees, no trace of dysentery, and no particular weakening down in the spring, yet they stood unprotected on the summit of a hill, exposed to blasts from Lake Erie of such force as to render it necessary to keep a couple of bricks on the Simplicity cover to prevent their being blown off. Now why did these bees winter well and come out with their combs all so clear and bright? Had we used straw mats, or given some peculiar ventilation, or had them in somebody's patent hive embodying some great discovery or other, what an excellent chance here would be for a testimonial. We are very happy to say however, that there was nothing at all peculiar in

their management. Nothing unusual was found in the hives, unless it was that the honey was all nicely scaled up. So far as we can recollect, and we noted all conditions carefully, the whole of the rine hives contained almost no unsealed stores. The Doctor declares he gave them no attention after we pronounced them all in order.

We have just been out to prepare the same Apiary for winter again. They ext'd about 100 lbs. of honey from the nine, in June or July, and made seven artificial colonies; the whole 16 are in the same condition as we found them a year ago, unless it be that they have more honey. The hives are too full; almost every space being filled up solid. One hive only, we thought might possibly need a comb from one of the others, and in lifting a comb out, we broke into one side of the cluster which was in the form of a perfect sphere, and perhaps a foot in diameter,—the day being rather cool now the bees that we unceremoniously pulled out, at first seemed to be dead—for all the world like a nest of ants, such as we sometimes find ir splitting timber in Jan.—but soon began to move feebly, and finally stirred around until they revived enough to show they were hybrids. These bees were dormant, or very hybrids. nearly so; they were so densely packed and knotted, that it seemed as though separating the combs would tear them in two. The temperature was then perhaps a little below 50°. Is it not possible that if they could be kept at just about that point until next April, they would winter without food? The way in which they were packed in the empty cells from which brood had emerged renders it seemingly impossible that they could move about to get food, nuless the cluster greatly enlarged. We feel sure that at least one of the requisites for such successful wintering, is being fed early, that their stores may be all sealed. Perhaps another is that after they get thus nested, they be not roused up in eool weather, as friend Bolin has suggested. Is it not likely that after being stirred up, they commence eating and then perhaps get a de-rangement of the—ahem, "bowels?"

The Doctor certainly has very little trouble with his bees, yet they are increasing yearly at a rate that begins to look serions to him, as he only proposed to get enough honey for family use from the three stocks he procured in 1872.

Now here is a point: his time is too much occupied to attend to so many himself. No one can be hired to extract the honey when it should\_be done, as he has proved by actual The principal crop of honey seems to be from the Autumn Flowers, perhaps principally from the Golden rod, as we decided by the flavor of several "chunks" gouged out of some of the most tempting looking combs with our pocket knife. The honey is very thick, of a rich golden color, and of flavor-well, preparing an Apiary for out-door wintering as we do it is not a very unpleasant task. As usual we forgot our point which was this: that during the cool antumn weather, bees will not store honey in an upper story as they will in combs at one side, for we find the lower story eram-med full. Again if the Doctor had had Standard hives instead of Simplicities would be not have had 20 combs filled with honey, or nearly that, instead of 10? We think he would, judg-

ing from appearances.

The Doetor's wife furnished a moral to this long story by relating that by great care she had succeeded in rearing about 200 chickens at one time in the spring. As they were valuable stock she gave them extra care until they began to die at the rate of a pailful a day finally she became discouraged and in despair concluded they might all "slide." "Slide" they did into the woods and pastures, and by "seratching for themselves" or for some other reason, they became strong and healthy, and no more died.

For fear some of our friends may accuse us of being contradictory we will say that we understand Old Dame Nature means us to read the moral thus: "Be diligent industrious and faithful, but beware how you by mistaken kindness upset the natural course of things." Attempting to rear brood in a Green house may be like the "chickens" so perhaps our friends had better wait until we have tried "Glass" one season before they invest much

P. S.—The colonies mentioned were not particularly strong, in fact two or three were rather weak in numbers; had there been a cider mill near by, in full blast four months in the year, as there is near us, we opine 'twonld somewhat disturb their "torpidity."

J. G. Sough of Shelby, O., has just paid us a visit and among other things, mentioned that a neighbor had a barrel of eider that was leaking, and as the bees seemed willing to save it, he allowed them to do so, but to "save" the bees after this diet, was more than he was adequate to.

[For Gleanings.]

# THE SECRET OF GETTING SURPLUS HONEY.

BY G. M. DOOLITTLE.

RIEND NOVICE:—We see from your remarks under our report in Nov. No. that you, and perhans most of the readers. IRIEND NOVICE:—We see from your remarks under our report in Nov. No. that you, and perhaps most of the readers of Gleanings, are laboring under a mistake in regard to our increase. You will see by referring to said report that the 3674 lbs. box honey was taken from 37 old stocks in the spring, and a part of our increase came from them and were boxed of course. Now for our method with our small hives holding 9 Gallup frames, and we would use no larger. In the spring (as soon as the first of April), we fill our caps with straw pressed in with a follower as tight as our weight (which is 243 lbs.) will press it. This brings the straw on the quit pressing it firmly on the frames mid by the next day, if we raise the cap and put our hand between the quilt and straw, it will feel somewhat like putting it in an oven, white without the straw the quilt is as cold as a stone. This sets the Queen to laying and the bees will hatch the eggs unless we have winter all the while, as we did last spring. Now If you know each stock has a Queen and plenty of honey, let them alone until pollen becomes plenty which is with us, from the first to the tenth of May, then go to each live, and if the hees will hear spreading a little more without danger of chilling the May, then go to each lilve, and if the bees will bear spreading a little more without danger of chilling the brood, take a frame of honey from the ontside, break the sealing by passing a knife flatwise over it, and put it in the centre of brood nest. In ten days go over with them again and so on and when warm weather comes, in June, go over with them every four days putting one frame in the centre cach time, and you will flud the Queen will fill it every four days besides keeping all the empty cells tilled which are daily vacated by maturing brood. By the way, this has proved more satisfactory to us than any or all the methods given for feeding to stimulate brood rearing. Don't commence to spread the brood unless you are willing to do all in your power for the well being of your bees. We have known a certain bee-keeper to carry all swarms that he in any way suspected would suffer

from over spreading, during a cold snap, into a warm room until it became warm again. But to return, by the 25th of June, every available cell should be filled with brood and the hive full of bees. By this time white clover is at its hight and if your bees swarm they do well, and those that don't swarm do better. If they are getting honey to any amount put boxes on all that do not show signs of swarming in a few days, but keep the boxes of the rest, unless they are getting honey quite freely. At this senson of the year we always like to put boxes on when the hive is so full of brood, and the bees so auxious for some place to put honey, that they will commence putting honey in the first boxes before we have the last ones on. When basswood appears put on all boxes, and by this time your new swarms should have their hives i wo-thirds hall of comb, and the old stocks their young Queen just commencing to lay. Those that have no! swarmed will have some boxes ready to take off, and will get nearly as much honey after this as the old and new together if they had swarmed. It is no trick at all to get 8 lbs. of honey put in boxes in a day if yon have your hive full of brood and bees, and honey is pleuty. They have got to put it in the box or nowhere. Galling gave us the secret in the A. B. J. years ago when he said "get the bees and they will get the honey if there is any to be had." Keep an eye out, and do things in the right time.

If we had waited 6 or 8 days longer this year before putting on our boxes we should have got nothing. We have come to this conclusion in regard to proll in bee-keeping and consider it perfectly safe; that each old stock, in the spring that has a quart of bees will

We have come to this conclusion in regard to profit in bee-keeping and consider it perfectly safe; that each old stock in the spring that has a quart of bees will make 80 lbs. of box honey if the senson is good. If they swarm the two will make that, and if they do not they certainly will. One man can with ease tend one hundred stocks worked for box honey. Now aflowing every other season a poor season, so that the bees do nothing, (if they make some honey you sell it to buy sugar to feed them with) and you have two tons of honey for each year. Twenty five ets. is the lowest price for nice box honey so you will have \$1000 each year as an income. I am speaking of an Apiarian whose knowledge is equal to 100 stocks and not of one to whose knowledge two stocks are equal.

Borodling, N. Y. Nov. 10th, 1874.

P. S.—We never saw basswood secrete honey as it

P. S.—We never saw basswood secrete honey as it did this year. By taking two stems of blossoms and joining them in the palm of your hand you could lurn 3 or 4 good thick drops of honey out of it.

Many thanks friend D., but we fear we have not more than a half-dozen readers who can accomplish the result you mention with box honey, simple as it appears as you state it. We have repeatedly tried nearly the same plan and yet have now only halffilled or empty boxes. We have used straw over the quilts but not pressed down, which is very likely an important point. Why not keep this packed strawwhich is equivalent to a straw mat and much cheaper-on the hive all winter as well?

#### BEE-KEEPING IN CALIFORNIA.

BY GEO. B. WALLACE.

I. ROOT & Co.:-Since my arrival here one I. ROOT & Co.:—since my arrival nere one year ago, I have not had the pleasure of reading GLEANINGS and now my thirst for old friends is my apology for this missive. One year ago I arrived here with 4 Italian Queens in Langstroth nuclei. Wintered them and with the help of an aplary here, I succeeded in rearing one or more Queens every month during the winter. In March I started business with 48 stands of bees laboring against many unfavorable circumstances, such as the want of surbusiness with 45 stands of occurring commitments and the want of surplus hives etc. In consequence many a fine swarm took leave for the tops of the mountains. Now for the plus hives etc. In consequence many a fine swarm took leave for the tops of the mountains. Now for the result: I have taken over six tons of choice honey by extracting and now have between 30 and 40 hives, two stories and full, but will leave them until another year strengthens my contrage. We have now formed a Co. of three persons and have 300 stands; have 3 apiarles, each containing 100 stands and have built long sheds covered with shakes, and wide enough to contain two rows of hives which front ontward on each side with 5 ft, alley in centre for wheel room. We have employed a cooper to make 250 bls. of Fir timber, which we think will not require to be waxed. If you desire I may at some time give a description of the manner of handling bees in this country. Send paper to Arrow Head Mountain Bee Co., San Bernardno, Cal., Nov. 6th, 1874.

#### OUR OWN APIARY.

VEN with the curtain down, the heat has been so great to-day (Oct. 29th) that we made a door of wire cloth and now begin to think the sole cause of the bees dying may have been the high temperature. The following note from friend Palmer corroborates this view.

The colony under glass seemed to "thrive" until it was warm enough for those outside to gather pollen. When the thermometer indicated 20° in the shade outside it marked 50° to 55° under the glass; when it was 50° outside it was 80° to 90° inside. Then the bees commenced to die and I let them out. Is it any wonder the bees died in 90° of heat and no fresh air?

Thanks for the picture.

Hart, Mich. Oct. 26th, 1874.

\*\*Non 2014. We have at leverth body description.

Nov. 2nd—We have at length had a day so cold, that the temperature out doors even in the suu, was not such as to induce bees to fly, and the green house does much better. In fact the bees now scarcely touch the glass, and yet they work on the meal almost as lively as if twere spring. The strong stocks are rearing brood nicely, but the cool nights have spoiled all but the eggs in our pet nucleus.

The house is too hot days, but too cold nights; to obviate this, we are about to build on at the end, so as to more than double its capacity, yet using the same sash which is about 61/2x13. Every part of it except the glass is to be covered with a thickness of about 18 inches of dry earth to prevent frost from penetrating; and to keep all dry it has an additional protection of shingle roof over all except the sash. We expeet this large body of air will when once warmed to about 700,-we now think the temperature should never much exceed 70° when bees are confined to a room - keep warm all night, especially if the glass is also protected at night by a curtain. The dimensions inside are now to be about 12x24 and 6 feet in hight. We think it advisable to have the room as low as it can be consistent with comfort, while working among the bees; for the same reason a flat ceiling over head is to be preferred, as the bees collect in the ridge, and the warm air rising makes it so hot as to be quite unhealthy for them, while they only struggle to regain the open air.

We are making preparations to put our bees in their winter quarters before cold and stormy weather, the hives are dry now, and the bees

seem quite healthy.

Sixty eight colonies now, counting nuclei and all. One of those under the glass was found Queenless, cansed probably by bees from other hives getting in by mistake when first put in. We united it with a nucleus, but thehr artificial abode yet so nearly approximates nature that we found the Queen in the midst of a ball of bees on the bottom board an hour after. She was promptly eaged and now all seems well.

Nov. 3rd-Our bees are all housed for the winter, except a few weak ones that are to be domiciled in the green house. We would like to say they are all nicely housed, and we suppose our readers of course presume we did everything just right. To be frank, we only succeeded in getting through with the first 20 colonies when we set out to ent winter passages. Remodeling and enlarging the Green House has taken much of our time aud-wel

concluded to let the rest go.

Why do we house them so early? Well, principally because the hives are dry and nice to handle; they seem very quiet, and have had their stores all nicely sealed for some time, and we thought it might be well to get them in

before damp and stormy weather.

We have left on their quilts just as they were in summer and carried in bottom-boards and all, that we might disturb them as little as possible. Quinby advises that they housed so quietly that they will know nothing about it. This we started out to do, but some of the hybrids found out more of what was going on than was really comfortable to one's feelings. The weak ones-and a large proportion really are weak again in spite of us-were docile enough it is true, but the heavy colonies of hybrids are rather averse to being disturbed. We know of no reason why our colonies should dwindle down as they do in the fall unless 'tis the cider mill, and we shall in the future have no more of this trouble we really believe, P. G.'s cloth curtains having proved a perfect remedy, yet great numbers were lost before they were used.

Oet. 6th-Although we have had a couple of remarkably warm days for Nov., our bees seem as quiet as one could wish, and by the way there is something unusual about them this fall in this respect. For instance: in building onr Green House, two hives that stood handy, were used as "saw horses" to hold lumber, and as the sawing did not seem to disturb them, we even ventured to uail inch pine boards together on top of these hives. credible as it may seem, not a bee showed his "phiz;" to assure ourselves they were alive we raised the quilt and there they were, full blood Italians, grandchildren of our Imported Queeu, and they were so densely packed that it almost seemed they would never get "untangled." After we had looked at them a moment in amazement, they began to rouse up with a behaviour that seemed to say, "what in the 'dickens' do you want of us this cool weather?"

A man that we have in our employ to "dig" (we can dig some alone, but when a "very big hole" is required we—that is—some how "'tother man" seems to be the most profitable) insists that our bees this fall really are a different kind, or they would never stand hammer-ing on the hives in that way. How is it kind readers? is it the new importation, or has the sealed stores given them in Aug. and Sept., something to do with it? or is it both? Now while we were putting them in the house we probably calculated on this sublime indifference to this world's "bumps" and as it was almost dark—by the way do you know that it sometimes "gets dark" at provokingly inopportime times?—but we finished putting them in. As we were obliged to hold the entrance against us in setting them on the upper shelves, two or three of the hybrid colonies which were very full of bees and correspondingly "sassy," "biled ont." It was too dark to see them plainly, but from the neighborhood of our waist there came a peculiar hissing sound, familiar to most of our readers, plainly indicating that they were anything but "dormant." we stung? Well really, as we went on with our work after brushing them off with a broom, we can hardly remember. Had it been daylight we should have saved the bees, but as it was we regretted far more, being obliged to kill the over zealous little fellows, than any injury they did us. We really do hope something will turn up to do away with "luggiug" hives about at any season of the year. An examination of the Bee House since shows all quiet again. In fact it is hard to believe the room contains any llving thing at all, when we enter on tip toe in the night time. This really seems like the year we first built the house. We lost noue then.

The bees in the Green House now work beautifully on the meal, and one live shows perhaps 50 square inches of sealed brood. After they have hatched out perfect bees we are going to sail our hat higher than it ever went before. If our readers should hear any thing unusual about Nov. 15th or 20th, they can conclude it was probably Novice giving three cheers for the successful solution of Proplem

No. NINETEEN.

A few bees got out at the door to-day when we went in for something; supposling these lost, we thought no more about it, but toward night seeing some bees about the door we opened it and let them in, and sure enough they flew in immediately to their respective hives.

Just think of it: It may be that we after all shall be under no uccessity of having the sash removable, but shall only be obliged to open the door to our Green House whenever the weather will admit of their going abroad; still further, is it positively among the impossibilities that a small door may be so arranged that it can be left open at all seasons allowing the bees to work abroad or in doors according to their own "sweet will," for we really do dislike making prisoners of any animated thing, and bees most of all? We really feel that we are but "groping in the dark" in this business, yet as light is daily coming we will try to be content. Help would be quite acceptable, and we should welcome with pleasure the result of any similar experiments.

We found our hybrid Queen safely introduced to day and had we not already spun out such a very long yarn we would tell about the remarkably large white eggs she lays. As it is, we'll say nothing about them now, but they really are remarkably large. By the way her bees,—nearly black hybrids—have an "astonishingly" cool way of giving a body decidedly pungent stings for no offense in the world except "jest trying to get a peep" at the aforesaid

.arge white eggs.

Don't you believe we're tired? Besides writing all this gossip, we have been at work since daylight on the extension to the Green House; nailing boards over our head until our neck ached, working all doubled up in eramped places with insufficient "understanding," scratching ones' head when it is already full of saw-dust and dirt, in the vain attempt to decide how a Green House should be made for bees, when there's not a mortal on the face of the earth who has ever heard of such a thing before, (nor since for that matter). Can't we say good night now? Blue Eyes was asleep hours ago dreaming perhaps that it's "too bad" that "Papa so busy" he couldn't even help\_her up when she "fa'd down" over his

"naughty boards" when she went out to see him work.

Nov. 7th-We opened the door again this morning and very soon the bees deserted the glass and rushed out and in at a great rate. After an hour's exercise in the open air—it is as warm as June—they go back contented, and work on the meal with more avidity than any day before, this fall. They have also eaten or earried away uearly a whole sweet potatosee Heads of Grain-but we were so busy we did not even see how they did it. In our work of enlarging the structure we uncovered the whole room in the afternoon, and finally had the hives so covered with boards, and timber, carpenter's tools, spades shovels etc., that it was a wonder indeed that a bee could ever identify any trace of their usual home, yet to our astonishment they labored as happily as if nothing was amiss; and even repelled some black robbers vigoronsly toward night that proposed to share their "meal and potatoes,

Nov. 12th—As sure as you are alive nice young Italians are hatching out! Wings are as good, and all else apparently as perfect as bees reared entirely under the broad canopy of

ıeaven

If it were not for the bees that still die daily from trying to get out, we fear we should be about as happy as we ever expect to be in this world. "Cause why?" When fruit trees are in bloom next spring, we could then have each individual hive ready to swarm if we chose, and then each would perhaps give 500 lbs. or more, and 68 times 500 is—but they do die as yet though not quite as fast as the new ones

hatch, so we will keep hopeful.

Nov. 23th-We have made many experiments since our last, have torn down and built up, moved the sash, changed its angle of obliquity etc. etc., but with no good result toward keeping the bees from clustering on it worth mention, until we raised the sash so nearly level that the south side is only one foot lower than the north. Mr. Burch was certainly right, yet we could see uo reason for it uutil we had made the experiment; it seems that bees like all wiuged insects and birds, in their flights for exercise, swing around on circles nearly level with the horizon. They may ascend or deseend, spirally, but find it very inconvenient to shape their circular flights so as to avoid striking a glass placed obliquely; whereas, with the sash level or nearly so, they describe circles or figure 8s, with no dauger of touching any thing unless it be the sash bars which they naturally avoid without effort. Seeing nothing but the blank sky overhead, instead of familiar objects may also have something to do with the matter. After changing the sash as meutioued, we put a fire in the stove, which was Incorporated with the apartment having no glass, and soon raised the temperature to 80°; this caused the bees to pour out of their hives as they do when a warm spell occurs sometimes after a storm; after an hour's cireling about under the sash, which was apparently quite satisfactory, they all returned to their hives or to their labors on the meal and syrnp, except perhaps 2 or 3 dozen. If we can reduce the daily mortality to 8 or 10 bees per hive, we are all right, for they are even now, rearing brood much faster. The pet uu-

cleus had their brood all killed during a frosty night while the house was torn up, and after two or three repetitions of the same, gave up. We thought we could easily start them again when all was made tight, but here we failed. Gather syrup or meal any more they would not, even while the other three were making the air jubilant with their labors. Finally we put them all in our Lamp Nursery, and kept their combs at a temperature of from 60 to 70° for over a week, but all in vain; they crawled over the combs idly, played a little in the sunshine, their Queen got small and insignificant, and they evidently, like some mortals, concluded they had "tried and tried, but it wasn't any use," and they wouldn't try any more. On the 22nd we turned up the lamp until their hive was warmed to between 80 and 90°, and at the same time gave them food drizzled on top of the combs, and now, the Queen has commenced laying, and they clustered on a definite place. One point right here: keeping the hive at this temperature does not induce the bees to fly out in a cold atmosphere and get lost; if they are taken out of the hive they fly back where it is warm with alacrity.

Did the "manure heaps" really have any agency in reducing the number of our bees last

spring after all?

On page 105 where friend Horner speaks of carrying bees in-doors for examination, we needlessly exposed our ignorance, simply, because we had never given the plan he mentions a proper trial. 'Tis a very simple matter if the room is not too warm. We beg pardon friend II., and thank you for your criticism. We hope there will soon be no need of losing bees in the spring just because of the weather.

Nov. 24th—Heighho! Another problem. Our sash won't shed rain with only one foot "fall" in six. At present we see no other way but to make another sash over this, on a proper incline to get the most of the snn's rays and to shed rain; this will also give au air space to keep out frost. The disadvantage is that it takes more money, and we often have a feeling of late that the whole structure is a piece of binndering in the dark (mud too just now, under the sash) and that perhaps when we get at what is wanted, it will all have to be thrown away as so much rubbish. Such is Bee Culture in unexplored directions.

Nov 25th.—Temperature in open air 10, greenhouse 38, in lamp nursery 90°. Queen has laid a nice cluster of eggs, but they haven't a particle of pollen. As the musery is roomy, we placed a small heap of meal at one side of the combs, near the entrance which is large caough to give considerable light. Even at a temperature of 100, these bees do not fly out unless the atmosphere of the room is above 50°.

Nov 26th,—The weather has moderated so much that we found the thermometer in the nursery indicating 110; the bees with the queen had deserted the combs and clustered on the quitt. She had filled quite a space with eggs but none have hatched as yet. Some of them had flown out, and again showed symptoms of dysentery, as they did when the room was warmed by the sun to 120. Does not this seem to indicate that a temperature of more than 100° is prejudicial to bees, and that consequently their hives need shading during the hot summer months?

# Gleanings in Bee Culture,

Published Monthly,

### A. I. ROOT & CO., EDITORS AND PROPRIETORS

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### MEDINA, DEC. 1, 1874.

A. B. J. at hand Nov. 5th, Magazine the 11th, and World on the 26th.

We are using hetter paper to print our Gleanings on. Do you notice it?

WE are happy to say our neighbor Rice, who advertises Catnip seed, is both prompt and reliable.

In answer to an inquiry on another page, we will say we cannot learn that the N. A. B. Society considered the matter of a Standard frame or hive at all.

REMEMBER all new subscriptions sent in before Jan. 1st, get Nov. and Dec. also, and that all old subscribers renewing before that time, get a present equivalent in value.

In getting up clubs for any purpose, subscriptions for Vol's 1, or 2, will count the same as for Vol. 3; accordingly we send Vol's 1, 2, and 3 for \$2.00, and include Lithograph besides.

THE inthograph we are prepared to mail promptly, but "that present," we fear we shall be unable to get fast enough to mail just the minute a renewal is ree'd. We'll try hard, however, to be prompt with this also.

MEDLEY will be ready to mail about Jan. 1st. Price will be \$1.00—to those who have sent in their Photo's, only 75c. Or it will be mailed to any one sending as 5 subscribers, to those having sent in their pictures, 4 only.

WE don't know that we have any great promises to make as to what GLEANINGS will be for 1875; we might disappoint you. It will probably be about what you might expect judging from an examination of our two first volumes.

TELL us about your froubles as well as your successes. Had we not mentioned the difficulties we have had with division boards, we probably should never have brought out the excellent device described on page 143 by friend Moore.

WE are under obligations to M. H. Tweed, for coples of the Pittsbargh~Commercial containing reports of the N. A. B. Society. The report is necessarily much abbreviated but our readers who desire can probably get it in full in the  $B, K, M_c$  as Mr. King took a prominent part in most of the discussions.

The Bee World for Oct., which came to hand just after our Nov. No. was issued, is one of rare practical value. Perhaps no single No. of any of our Jourhals has given as many valuable letters bearing directly on the "frame" question, as this. Will our Southern friends accept our thanks for the information we were thus enabled to "glean" from so many practical bee-keepers.

CAN we be so very positive after all, that large hives give any great advantage? Doollttle's yleld was most extraordinary under the circumstances, and yet his hive (nine Gallup frames) is the smallest we recollect ever having seen recommended,—but illthe more than h the capacity of a one story Laugstroth. Will be describe his honey boxes and tell us whether they are put only on top of the frames.

WE presume many will read the California report with interest. We would be very glad to hear what you are doing, friend W. Could we have a climate permitting queen rearing every month in the year. It seems to us we could not only supply the world with dollar queens, but could get six tons of honey from 48 colonies, oven with onr average seasons, with all ease. We can't well pull up stakes and go to California, but if the greenhouse will enable us to push broad-rearing regardless of weather, it will be the next best thing.

Is it possible that any one who will take, and read the American Agriculturist can fail to be benefitted to the amount of \$1.60? As a vehicle of civilization, and for keeping up with the industries of the present time, whether one he farmer, mechanic, merchant or anything else, we do not see how they can fail to feel on interest in its pages. Every page of it, even he advertising columns if read, will have a tendency to improve your homes, improve your morals, and just as surely, augment the contents of your pocket-books. Sent will GLEANINGS poslpaid for \$2.10

### SOME REMARKS IN REGARD TO OUT-BOOK WINTERING.

BY CHAS, F. MUTH.

S winter is approaching I suppose almost every one of us has been taking care to put his bees one of the supply of whiter stores, cut whiter ingst. I. e., has seen the Queen in every colony, given each hive the necessary supply of whiter stores, cut whiter insusages through the combs and arranged them so that the combs with brood, if any such be found, hang in the middle, and honey combs next to them etc. I have given my hees the full size of the lower story of a Langstroth hive, with ten frames, honey in cach one, without regard to the strength of the swarm or to the honey being caped or meapped. Why should the honey sonr in the cells, when it does not sour in an open vessel? But I have a straw mat on top of the whole and an air passage above the mat. Let us give our bees a warm covering in winter, but at the same time I prefer unward verillation, whether this is effected by the aid of a straw mat or something clse makes no difference. I know there is much said in layor of giving om bees inst as many frames as the colony can cover, yet I have failed to see the difference in spring, in the bees fillose of my friends who put them up in that manier, and my own bees. To test this matter I have left a medium sized swarm in a one story hive containing 20 Langstroth trames, every frame filled or partly filled with honey. I don't believe that anybody's bees wintered better last winter than my own, and those of my neighbor's who put them up similar to my own. Friend Carry's bees became strong in spring perhaps faster than any other bees in the neighborhood, caused by a splendid natural profection. Their apiary being stimed in a hollow, opening to the south and protected from cold winds almost completely. I wish you would give our way of wintering a fair test, brother Novice. It might be the means of saving you wind others a good deni of labor and disappointment. I should not hesitate to winter bees in Minnesoto or Wisconsin, on their summer stands and protected as stated above with the same confidence of success.

Thanks for your very excellent hints friend M. In regard to honey souring in the cells, our experiments have given us some light. The pet mueles, as we have called it, when first put in the greenhouse, gathered a large quantity of thick syrup-much more than the cluster could cover, and after having cool nights, they began to have a peculiar disagreeable smell. We supposed this was caused by the moisture from so small a cluster, mixing with the honey, for in fact right about the cluster was visible a peculiar damp kind of mold. This all disappeared after we kept them up to 60 or 70%, by means of the lamp nursery. Had there been bees enough to keep the whole hive warm, this we think would not have been the case, for other colonies near "smelled" all right. We never hesitate to "poke" our nose into any

thing, even bee hives, if we think any thing is to gleaned thereby. Perhaps a good large cluster of bees would get along well on unscaled stores, but we feel sure weak ones will not. To digress a little, we last month mentioned symptoms of dysentery in the greenhouse; this has all ceased since we enlarged it enough to prevent a temperature of 100° or over occurring. In Feb. 1869 we had about 40 colonies in our cellar; in order to give the strong colonies enough ventilation to keep them quiet, we removed honey boards and cap entirely. We had perhaps ten days of weather almost an warm as summer, and opening the door and windows nights, seemed only to make them warmer. In spite of all we could do, all but eleven died of dysentery. Now the smell we noticed in the greenhouse when the thermometer stood at 120°, was precisely the old familiar one emitted by these diseased colonies. Many of them had unsealed stores. Could they have had a good fly-we put them out just after the warm spell was all over—they might have rallied. All had natural stores. Is it not possible that getting too warm has as much to do with the disease as getting too cold? As bees never get too warm when wintered out of doors, we certainly secure one condition by your plan, friend M. The testimony in favor of straw hives and straw mats is certainly too strong to be passed over unheeded. But do you believe friend M. you could thus winter a colony whose stores were half from the eider mills, or some equally unhealthy diet? We too have often had serious doubts of the utility of division boards for win tering, but are at present hardly prepared to decide them useless. Very many things that we "fuss" with are perhaps useless, and we know of no point neceding the benefit of clear cool judgment more than this, viz: to determine what may be safely dropped and what may not. We are testing a straw mat, and have three colonies wintering out doors.

### HONEY COLUMN.

HAVE two barrels of white clover and basswood honey and about 400 lbs. of Aug. and Sept. honey, mostly golden rod. that I could sell. It is all condided.

A. BUES. Forest, O. Oct. 26th, 1874.

If the Semi-weekly Tribune (N. Y.) of Oct. 27th from which we clip the two following items, has been correctly informed, it seems friend Grhmm has quite a formidable rival in the honey business, in the East, as well as J. S. Harbison of San Diego, California, who is said to have produced seventy five tons this season. We are making an effort to get at the real facts of the ease from the gentlemen themselves. The second item seems to be a revival of Problem 17, as given on page 80, Vol. 1.

We read that John E. Hetherlington, Cherry Valley, N. Y., "shipped one day last week a car load of 10 tons of choice white honey. He had previously shipped three tons, besides two tons of strahed honey. His crop this season will hardly fall short of 30 tons."

Some of our aniarians are talking of a wagon with frames for a large number of hives, that can be moved about from one localion to another. The henefits claimed are to take advantage, first, of the maple and willow blooms; next come back to orchards and white clover; then off to the forests for the basswood and other flowers; then for the blossoms of the tulip tree, and finally back to the fields of buckwheat and flowers of Antunn. This plan has been pursued in a small way for some years.

# Reports Encouraging.

I HAD 10 colonies of bees at Port Sanllac, the past season, from which I got over 2000 lbs. of honey. I don't think that very bad for a new beginner. Ten colonics were all the bees I had, but the honey harvest and yleld in Sauliae Co. this season, was the best I ever knew.

Wm. Spedding, Rockwood, Mich. Nov. 20th, 1874.

Bees in our locality have done splendidly sluce the spring troubles. Box hives in the neighborhood have in some instances yielded over 100 ibs. comb honey after having been robbed in the usual way last spring. I helped transfer several such myself. Our people are becoming interested on the subject. I have larenessed mine to over 40, having bought some.

W. F. LEWIS, Baldwin, Miss.

And do you too have "Spring troubles?" Please tell us about it.

DEAR NOVICE:—I wonder if any one of your subseribers takes care of his bees as far from his work as 1 do. It is 68 miles from where I sit all day long writing letters, to where my bees are, and I have taken all the eare of them myself, increasing from 8 last spring to 22 ready to put in cellar and have taken 3%0 lbs, of very nice extracted honey. Spent about 15 days with them. I have promised my wife \$2.00 each, for all the hives she winters. C. C. Miller, Chicago, III.

A the top ideal Existed M. Whom we get

A tlp top idea Friend M. hold of something we can't manage ourselves, whether It be intemperance, eider mills, or wintering bees, just put the whole matter into the women's hauds and it will generally be all

right.

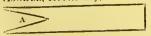
Ia Angust I visited several bee-keepers in Onondaga Co., Mr. Root, Mr. Hosford and Lloyd of Otlsco Vailey, Mr. Doollttle of Borodino, and others. Mr. Root keeps about 50 swarms, says he has sold \$3000 worth of honey in four years; has known only one year in his experience in which bees did not pay well. Mr. Hosford works bees on shares for other bee-keepers mostly, and has raised this season about 4000 lbs. box honey. Mr. Lloyd commenced the scason with 21 swarms, increased to 44, "natural swarming" and got 1500 lbs. box honey; he saves bees in the spring by closing the hives cold and windy days. Mr. Doolittle's report you have. I will only add I had the privilege and it was a splendid sight. Mr. D. also showed us his aplany, the \$1.00 Queen, her progeny etc. etc., and I think she is just as good a Queen as one I bought of Mr. Langstroth for \$20.00.

Taken altogether, we had a very pleasant and profitable visit and left satisfied that Ouondaga Co., is the place for box koney, and that Basswood is the secret. Enclosed flud Photo of myself and wife; it takes two to make one bee-keeper at our house. I expect (I reports are true) you will see the "better hait" first, G. T. Wheelett, Mexico, N. Y. Nov, 20th, 1874.

# IMPLEMENTS, DEVICES AND SUGGESTIONS

A DEVICE FOR CUTTING WINTER PASSAGES IN тик сомвя.

T is simply a tin tube 6 inches long and I inch in diameter, shaped thus: This jushed in the comb at the same time turning gently back and forth cuts comb nicely. The tube is easily cleared by means of an awi thrust across the slits A. C. HOOKER, Middlebury, Vt. Nov. 16th, 1874.



We have tried the device, and it does the work admirably. By simply thrusting the two points through the comb and then turning the tube 1/4 of a revolution, a smooth round hole is made much quicker than the sharpest pen knife will do it. As he is the inventor, we propose he make them just right and offer them for sale; we will give him an advertisement gratis.

now to secure strait combs every time. Place the frames rightly and fill the hive to double its capacity (according to ordinary ideas) with bees or which is equivalent, contract the hive to half its capacity, or so much that in hot weather, some bees will hang out the ilrst night. In a few days, lasert frames between, to give room. The philosophy is, the bees being cramped for room to build combs, start them rightly on all the frames at once and thea, those started, when separated act as guides for the rest of the frames introduced between. Try it, fellow Novices.

From what experience we have had, should judge the above to be correct. Where the quantity of bees is limited, this result can better be attained with short frames like the Gallup or Standard. The principle is essentially the one friend Dean works on; see page 91 Aug. No.

I gave my bees a little tye flour yesterday, and they are working on it the same as in spring. Will it do any harm or good? Would you let linem have what they will earry into their hives? Please answer by return mail, and you will very much oblige, S. F. NEWMAN, Norwalk, O. Nov. 10th, 1874.

Although we have had no experience in the matter, we should say give them all they will take any day in the year, by all means. Should they not use it now, we feel sure it will be just what is wanted in the spring. We had been thinking our green house furnished the only conditions under which meal could be fed in the fall.

FRIEND NOVICE:—The Nov. No. of Gleanings at hand. You seem to be at a loss for a substitute for winter pollen. Supposo you try "Sweet Potatoes" nicely baked, and put within or near the live. I have done so successfully. During warm weather I keep a tumbler illed with water, and inverted in a saucer, standing at the entrance. A bit of soft cotton cloth twisted and called in the saucer leading to the eatrance furnishes water at all times. Have had two Queens in one hivo nearly all summer—one wingless. Have been successful so far. Have the Italians. For pasturage have truit blossoms and linu, the latter in bundance, also clover, limited, some bnekwheat, and a few wild flowers. Success to Gleanings, always on time. P. T. Roleum, Emlenton, Pa. Nov. 3rd, 74.

After receiving the above, we imagined we had succeeded also with sweet potato, but now are obliged to come to the humiliating conclusion that the mice ate it, for we only found it gone, and did not see the bees at work at lt. Since trapping the mice it remains all untouch-If used as pollen we think it must be packed on their legs; did you see them do this friend "Roleum," or did they only tear it to pieces for its saccharine juices? We shall have to learn caution in stating the results of our experiments.

I have an icc honse with a front room 5 by 10 feet with thick walls; would it do to put bees in it to winter. If all is well, I want a Queen as early as it will do to introduce her in the spring. Shail I send you the dollar now, or wait?

L. M. RAUB, Bolivar, N. Y. Oct. 26th, 1874.

We do not see why the room will not answer an excellent purpose if you can keep it between 40 and 45°. It will also have the advantage of enabling you with little trouble, to keep it cool enough during protracted warm spells, before it is advisable to put the bees out.

We would prefer that no order be sent us for Queens until we, through GLEANINGS, give notice that we, or our neighbors are ready to ship them. This will not probably be before June, unless the greenhouse should amount to something in that direction. If it does, you will be pretty sure to know all about it as it progresses.

## Heads of Grain, FROM DIFFERENT FIELDS.

RIEND NOVICE:—Owing to the unfavorable and unprecedented dry support mad unprecedented dry summer, we are not able to give a very flatterling report of our Apiary. We began the honey season with 31 very weak hives and extracted 325 lbs. of very uice honey, nearly all Linden. One hive gathered 165 lbs. in ten days and earried it nearly three miles. We have increased to 75 colonies, mostly in good condition. Some are weak but all strong enough to winter. We wintered 35 colonies last winter several of which were maciei, without loss, till they got the swarming out only occurred when they could not get natural pollen. Hence the remedy is not to set out the weak stocks until they can get natural pollen, provided they can get natural pollen, provided they can be kept in a healthy condition.

The Rape, 17 lbs., was sown at different times in June, and came up but was a total failure as I suppose every thing else would have been this dry summer.

E. C Laren, Ashland, Mo. Nov. 37d, 1874.

It had not occurred to us before, that the

It had not occurred to us before, that the swarming out in spring was particularly eaused by lack of pollen, but from what we now call to mind, we have no doubt that it is oue of the eauses if not the eause.

Our Green Honse is enabling us to study the pollen question as we have never been able to, heretofore. As for swarming out in there, bless you! wouldn't that be a joke for certainon the bees. So many reports have come in in regard to Linden honey being brought long distances, that we fear we shall have to admit they do at times go 2 or 3 miles profitably. The structure of these blossoms enables bees to load very quickly, during a heavy yield.

We are sorry to say that but few flattering reports of Rape culture in this country have yet been ree'd.

DEAR FRIEND NOVICE:—We call you friend, but seems to me I hear you say, who are you? Oh! Pm the chap that used to get the old American Beo Joural from the Post Office, tear off the wrapper, hunt no Novice's article and devour it, yes labrly cat it, before I'd go a step farther, and vears before! knew he had a Root to his name. Finally he got stuck up and started a Bee Journal "his self," and we looked in value for the old famillar name, till we couldn't stand it longer and came pattering after Gleannings and the Photo, with we requisite \$1.00. Lithograph received all O K, as also back No's of Vol. I, and we have read 'em all too. Can't get along after this without Gleannings to complete the list for we take all the Bee Journals. Now about flying bees in a hot bed. Am going to make one for two or three stands, how do you, or would you ventilate it? or does it need no ventilation? I had one strong stock last spring, and one light one, increased by purchase and artiflicial stocks, all light, to 7 strong stocks, plenty of honey for winter, and have taken 330 lbs. honey, 1164 lbs. from one, and also frames of brood and honey from same one. How will that contrast with Mr. Adam Grimm's report of 1138 stocks and 25919 lbs. honey? Oh! well, guess you'll have to put us away down in the "wee" corner, send herewith a Photo, of self for your medley, if it's not too homely. Your friend W. M. Kellogg. Onelda, Ill. Nov, 5th, 1874. DEAR FRIEND NOVICE:—We eall you friend, but to me I hear you say, who are you! Oh! Pm

Onelda, Ill. Nov. 5th, 1874.
P. S.—A kiss for "Blue Eyes,"

Some provisiou must be made for ventilatiou, or rather for reducing the temperature, in warm weather at least. This was our greatest blunder for we made the glass the full size of the room at first, and found it insufferably warm inside while icicles were hanging to the caves on the outside. This to be sure was remedied by a wire cloth door, but to prevent its being too cold when the sun had gone down, this door must be opened and closed twice a day or oftener, and even then we lose this volume of heated air that is so much needed in the night time. Reasoning from this we presumed ma-

king the building much larger and having the glass only eover part of it would give a more even temperature and also economize the surplus heat furnished during the day time.

Our room now is something over 12x24 feet. and all except the glass is protected by 18 inches of dry earth, all earefully roofed over, to gnard against frost in winter. It seems to answer as we had anticipated, but we cannot

report fully until colder weather.

In regard to Grimm's report: our Journals have for years been teeming with reports of great amounts of honey obtained from occasionally a single hive, or the product of a single season. Certain parts of York State have this season produced great results, yet for three seasons previous they have not reported at all, or at least but little worth mentioning. In order to get at the real profits of bee-keeping should we not have the average amount per hive, and if we are to make an estimate of what can be depended on in the future, shall we not also have reports every season? Adam Grimm has we believe always reported, and has given us the benefit of the results of his work poor seasons as well as good ones.

Also, if it be possible to secure \$50.00 each from 3 or 4 hives, or even half a dozen, it will not pay us to spend our whole time ou so few. The bee-keeper who can so manage 50 colouies as to secure \$1000 from them per season, on an average is in our opinion far ahead of the one who gets \$50.00 as the product of one hive in a dozen, once in 3 or 4 years. Could our readers make as good a result on an average, as the lady who writes the followingreally, we don't know what would happen, only that we should feel quite happy to see so many others happy. The 24 colonies mentioned were wintered entirely ou coffee sugar. See page 21, Feb. No.

See page 21, Feb. No.

DEAR BEE KEEPING FRIENDS:—I commenced my letter on a postal eard but have hild it by, as not half large enough to write what I want to. I wrote you a letter last winter which was so full of "palaver" (as the old lady called it) that I was hearlly ashamed of it afterwards, especially when the returning postal card thanked me for my good opinious, but really I was sincere and I believe most any one else would have been just as thankful as I was. I should say we, husband and myself, for last year we had a very unsuccessful year and It was our first year with bees. Just then came such a bundle of good things (the Gleanings) that it gave me a great deal of comfort, hope, and I trust profit. Comfort, because they fold us we had been doing just about the best thing that could be done considering the poor year; hope for the future, and profit through the experience of others.

the future, and profit through the experience of others.

This year has been a very poor one for bees, indging from our nelghbor's bees), for I do not know of a single colony kept on the old system, in box hives with no care, that have given their owner any surplus, or swarms that have built their hives full of combs.

Wo feel well repaid for the eare we have given onr bees; each of the 24 colonies with which we started in the spring has given us about \$25.00. Husband says no stock on the furm has paid so well for their care and feed. We think it will pay well to raise catnip, we had a small bed of it which we set out in the spring; the bees swarmed on it for weeks. Buckwhent did well, Mr. McLay says it seldom fails in this vicinity. Wo sowed some three times, tho first did not amount to much, dry weather and grasshoppers injured it badly, but it gave a little picking for bees. The two last sowings did well, I think husband sowed them from 3 to 4 weeks apart. We think we shall sow acres to catnip and mustard next spring. Of our Rocky Mountain plant only a few seeds came up, the bees do not swarm over it as they do eathip and buckwheat or clse it was because the plants were more scattering. Extracted honey retails here for 25c, and box honey

or else it was because the plants were more scattering. Extracted honey retalls here for 25c, and box honey lor 30 and 35, we are satisfied that we got as much

again honoy by extracting as we would if we had made them store in boxes. We had three of our strongest with boxes on—got tired of their slow work—took them all out except from one hive which we made finish up those that were nearly full, and extracted the rest.

made finish up those that were nearly hin, and extracted the rest.

Our bees are mostly Italians, think they are much better than the common blacks. I have a few questions I would like to ask.

1. How do you manage to keep track of your hives that you have extracted? do you commence and go through the whole aplary at once? If you skip around, one so soon gets mixed up unless accurate account is kept on paner.

We take We take each hive in regular order. Some may not be ready 'tis true but we look them over and see that they need nothing. In this way we are sure to see that all Queens are doing their duty etc., also we can readlly com-pare one colony with another.

2. How did your hemp pay you? I noticed in GLEANINGS you thought of trying it this year. Would you advise raising it for bees.

We did not try the Hemp although Messrs. Shaw & Son did. Bees worked ou it some in the morning but perhaps not more than on corn and some other pollen yielding plants. We do not think it would pay to raise it exclusively for bees.

3. Could you tell us the best method of harvesting a erop of mustard seed? and if the black mustard is better than white for honey, could the seed be sold to advantage do you think? Is the white ever sowed for bee?

for bees

We will try to collect information in regard to mustard before another season. See page 124 last month.

4. What sized honey jar sells best, one, two, or three lb.?

We now use Mason's 3 lb. Fruit Jars. We prefer them because consumers, having no use for jars made expressly for honey, wish us to take them back when emptied, and coming one at a time, they are too much trouble. The regular fruit jar can be sold with the honey, at the market price, and thus afford a small profit

5. Do you think bees would go back to their hives if put in a warm room with one south window, and allowed to take a fig in the winter time, if the hive were set against fie window? if they would, would it not be a benefit to any colony troubled with dysentow?

terv

If you could have a window that reached down to the floor, so that the entrance to the hive could be placed very near where they would fall when tired of flying against the glass, it would probably succeed. Perhaps a broad table placed tight against the wludow sill, that they might not get down on the floor, might answer. The room must not be too warm. We are inclined to think from 60 to 70° enough. They will buzz on the window a good deal the first day, but soon get used to it, and fly about the room safely.

Will you please describe golden rod and aster? how tall do they grow?

Both belong to large families, show many varieties and usually grow from 4 to 6 feet high. The Golden rod may be known by its solid masses of golden hued bloom, composed of many small blossoms. The Aster on the contrary bears flowers singly that are perhaps an inch or more in diameter, and somewhat resemble a Sun Flower on a small scale. ferent varieties are found of each in different localities. To furnish honey profitably, like all other plants, there must be acres of them.

6. In using your surplus bees to raise Queens in top of hive will bees enough stay there? or is it necessary to slut them in?

Bees enough will usually stay if brood be moved up with them. Sometimes however, we have found it necessary to fasten them in for two or three days.

7. Some recommend turnips to be planted so as to blossom just after fruit blossoms. Should the turnips be set out in the spring early, for that purpose? I think the seed would not blossom so early, and turnips would not live in the ground if left in through the winter in this climate. I would think it quite a trask to set out a very large bed of turnips, and unless of considerable size, it would not benefit bees.

We think you are right. Unless one had a job of raising turnip seed for the market, 'twould "cost more than it come to." If covered with light top dressing, they might stand the winter, but even this would be rather expensive. To derive any appreciable benefit, we really must have acres of the flowers.

8. We use the Peabody extractor. Don't see how an extractor could work better, but we have never seen any other.

The Peabody machine certainly does good work, but it runs hard and works slowly. With thick honcy, it must be brought up to a high speed requiring a man's strength; when this speed is attained, it requires even more than a man's strength to stop it instantly as we readily do those machines in which only the light frame that holds the combs revolves. Your husband is doubtless strong (and patient?) or he would have complained of heavy Quinby combs ere this.

9. We also use the Quinby hive and like it real well, don't see that we could better it very much.

The Quinby frame is certainly a good one; perhaps the best, where only a man handles

We made a universal feeder for each hive, ex-

10. We made a universal feeder for each hive, extracted all their honey, made good thick syrup and feet the bees for their winter stores. We have now 47 good colonies with plenty of good sugar syrup scated in their combs; for winter feed we used about 20 lbs. sugar per colony, they seem to have plenty.

We like the feeder, only one has to learn how to use it. We got the strongest Indian Head Factory we could find but syrup of what we thought the right thickness would run through too fast, so we took a swab and rubbed a mixture over it, 1/2 beeswax and 1/2 rosin melted together, not all over it, but just enough to prevent the syrup from running through too fast.

Use eanvas, or "duck," as it is sometimes called, and you can feed even clear water in it

if you choose.

Husband made a tent which he thought very 11. Husband made a tent which he thought very handy to finish extracting in, or rather to put over the hives while taking out combs. We did the extracting in the house, the back of the tent was fixed on two wheels, and when he wished to move it he only had to lift the front and move it like a wheelbarrow, we only needed to use it at the close of the last honey harvest. We could not have taken all their stores without it.

SARAH J. W. AXTELL, Roseville, Ill. Nov. 3rd, 1874.

We presume such a tent is an excellent idea, although we have never used one. In removing the honey preparatory to feeding syrup in the fall, robbers are so troublesome that 'twould be difficult to get along without some similar device. If you put your tent on four wheels, and place it on a track which runs between two rows of hives, you have friend Blakeslee's idea precisely. Thanks for your very practical and useful letter.

A. I. ROOT & Co.;—Why Novice! as sure as the world if what I find way down in the corner of cover of Nov. GLEANINGS is correct, all our dollar Queens are pure, and also the one sent me by II. Alley. After we had learned how to introduce Italian Queens successfully, (which we have done with more successfulls fall than early last summer) we thought we would have one may if we had to send all the way to would have one pure if we had to sead all the way to italy for it, but we will stop now if we can only winter those we have; still our success in the past makes us

hopeful

feel hopeful.

Notice asks the question "cannot bees almost always gather pollen, when the weather is warm enough?" I answer yes, our two colonies containing out best talian Queens, which we have been feeding to silmulate breeding, were gathering pollen yesterday and the day before, but I am afraid this is a bad onien, they have used up all their supply of pollen I fear, and have none on hand for winter. And now I shall propose a problem: Can bees be wintered successfully without any pollen?

Low Banks, Ontario, Can. Nov. 9th, 1874.

We will call a lower Propuser of 5. Who talle?

We will call above Problem 25. Who tells?

DEAR "NOVICE":—I suppose you must "mean me," in your remarks on pictures in the Nov. No., no matter which horn of the dilemma I take hold of; I therefore herewith send you my Photo. I also send you Mrs. Lanc's beenuse, 1st, they were both on the same card, and secondly, because she and I have run this institution including the little "buzz" all by ourselves, this season, and therefore I hope the pictures may prove equally acceptable.

Last spring we had 34 colonies, and we now have 72 "such as they are." We are such "old fogics" that we sun the Apiary exclusively for box honey, and we have secured only 2409 lbs. Whether these results constitute a success or not "this deponent sulfh not."

D. P. Lank, Koshkonong, Wis. Nov. 7th, 1874.

The "Photo's" are coming in quite plentiful-

The "Photo's" are coming in quite plentifully and 'tis amusing to see how differently our friends look many of them, from what we had judged by their letters. For instance: who would suppose from the light boyish tone of friend L's letters that he was so far on life's road as to show streaks of gray. May we all grow old as eheerfully.

Send along the Photo's of the "better halves" too, by all means, whenever they assist at beekeeping or bee-losing either, for that matter, they are certainly entitled to join our throng.

A trifle over 64 lbs. of box honey per colony besides more than donbling the stock ought to be success sufficient to satisfy almost any one.

Several half barrels of Clover honey aiready crystalized. Do you know of any way to get it out without taking the barrel head out?

G. C. Miller, Mt. Hanley, Nova Scotla. Nov. 2nd.

See page 60, May No.

MR. ROOT:—Please permit a humble "perusaler," of your paper to bid you God speed in your task of airing humbugs and swindles. And great may be your reward for taking right hold of mastiffs as well as little curs, is the prayer of one who appreciates "GLEANINGS" and despises humbuggers.

Yours truly, L. B. HOGUE, Loydsville, O.

FRIEND NOVICE:-Frank Langdon, of Kirkwood, FRIEND NOVICE:—Frank Langdon, of Kirkwoot, N. Y., had one stock of Italians that filled two 50 lb. cases of small frames, and he made one stock from It. About the first of June I fixed up 4 stocks of hybrid bees for Roswell Bump, Binghampton, N. Y., they were in Langstroth hives, but many combs were built crooked. I told the boys to take off the sticks in two or three days, and I suppose they were never opened after the sticks were removed. They tell me one hive filled twenty three 6 lb. boxes, besides swarming onec. That beats me, That beats me.

That beats me.

As you seem to have had some trouble about division boards, i will tell you how I made some to winter two nuclei in one hive; take some lath such as we use to make small frames, \( \frac{\pi}{2} \) inch thick by \( \frac{1}{2} \) wide, cut two pleces (ends) long enough to reach from the bottom of the hive up to the quilts, cut one piece (bottom) the length of the hive inside; and one piece (top) the length of the hive over the rabbet, and notch the lower edge so as to fit the rabbet; Now take some old woolen cloth hard twisted and close woven, nail all together with cigar box tacks and clinch and tack on to the frame, and you have a division board, that the bees will cluster up agalust, that will not warp or shrink and will give each the benefit of the heat from the other.

Binghampton, N. Y. Nov, 3rd, 1871.

Biughampton, N. Y. Nov. 3rd, 1874.

Thanks for the suggestion. We think such a division board might be made to "keep tight,

and they would be light and neat to handle. Another thing, in using these for strong stocks they could not be gnmmed down so firmly as to be almost a flature. We have never known bees to gnaw woolen cloth.

REFORT OF MICHIGAN APTARY FOR 1874.

Began with 48 stocks in good condition. Have lucreased to 55 and taken not less than 8500 ibs. of surplus, only 1000 of which was comb honey. I have, as you well know, started a "Houey Honse" on a small sente for the purpose of selling my own crop, but have met with sneh good success, that I shaif handle about 20.000 ibs. before next season. Have already bought the crop of several Michigan hee-keepers, but shalt try in future to raise all the honey I can handle. Hope all bee-keepers will retail their own honey, thus creating a greater demand for It. Our home demand has increased fivefold since I started an Apiary here.

James Heddon, Dowagiae, Mich. Nov. 5th, 1874.

Mr. ROOT, Dear Sir:—I will send you by to-morrow's mail, a Queen. I would like your opinion as to purity and value. I bought her (a dollar Queen) of a breeder well known to you and re commended by you. She may be pure but I would't give away such a Queen if I cared for my reputation. I had her in a strong colony about a week and as she didn't iay any I removed her to a nucleus. She laid a few eggs soon after that. I don't wish to spoil a stock by using her. You can do what you please with her. I presume she will be dead, but you can judgo something about her, she is the smallest Queen I ever saw.

E. Kimpton, Cedar Creek, N. Y. Nov. 6th, 1874.

The Queen came to hand alive and is certainly small, but our friend should remember that all Queens generally look small and insignificant in Nov., also that they usually lay but few if any eggs either in Oct. or Nov. Please remember also that selling Queens for \$1.00 is pretty close business. and if occasionally one should prove poor it is no more than we might expect. When orders are crowding, we often ship a Queen as soon as she has laid her first dozen eggs, and consequently we have no means of knowing what they will prove to be. At the same time we hope none of our Queen rearers have been guilty of selling Queens from other than choice pure mothers, and from cells that were well supplied with royal jelly. The Queen in question was so tenacions of life that she lived several days in the green house after the bees with her had died. She might have lived longer had we not (regretfully) pinched her life away.

A. 1. ROOT & Co., Sirs:—The Wormwood has been of great service to me this season, especially in those hives used for extracting. A fittle of the smoke blown among the combs drives nearly all the bees down into the lower story, then by the use of a brush made of White Cedar boughs tied together, the combs are ready for the extractor as soon as one could wish; the smoke does not seem to stupify or injure them in the least. One brush of Cedar boughs has lasted through the honey season. This has been a poor season for box honey but have had a good yield from a few hives on which the extractor was used. I do not know that any of your readers feel as I do about the reports of such large yields of box honey from J. P. Moore, Binghamptou, N. Y., and others in his vicinity. I am very anxious to know what kind of hives are used and how managed to secure such results. Perhaps he is flooded with Inquiries and I am waiting and hoping that all the particulars will come before the public without making him too much trouble. We cannot all go there to get the information but it might be worth many dollars to some of us, if we knew all the particulars, such as size of hives, size of brood chamber, comb frames, honey boxes, and way of access to boxes etc.

A. C. Hooker, Middleburry, Vt. Friend Moore we think will be happy to as-

Friend Moore we think will be happy to assist in any way he can, but we fear 'tis not every one who can succeed as do he and Doolittle, even had they their locality.

DEAR NOVICE;—To-day 1 ree'd GLEANINGS; I and my letter in print, in which I wrote you so dolefully. I must give you the history of the seasou as a postseript to that letter. I send you an extract from

IV. I finist give you the history of the season as a postseript to that letter. I send you an extract from my diary.

From the 5th to the 15th of June nearly every day it rains, and is cold. Bees are to be fed almost daily. But few of the hives are more than half full, say from five to six frames. I use frames one foot square. Not a single hive has one pound fresh house except the teeding; eggs are laid sparingly and combs with larva are abandoned.

July 4th—The two straw hives have swarmed. Of 21, 10 hives have from 11 to 12 frames well stocked with brood, the rest contain from 7 to 9 frames, and 3 of them are Oneenless. Not a hive that has one pound of honey, and all very poor in bees.

July 1th—Extracted 325 lbs. Linden honey.

July 2ist—125. Item—the weather is monrufully dry, the Linden flowers gone, fasted only about 5 days.

July 2ist—25. Item—the weather is monrufully dry, the Linden flowers gone, fasted only about 5 days.

Aug. 1st—Extracted 152 ibs.

Aug. 1st—Extracted 152 ibs.

Aug. 5th—160 lbs. Bees in good condition and honey is brought in at a fair rate, pollen is gathered plentifinily. Whole combs are filled; the pollen is blue, the moistened powder.

Aug. 9th—Extracted nearly 300 lbs.

Aug. 25th—The weather is very fine and honey flows as usual although very dry. Buckwheat is nearly gone, all hives rear brood splendidly. Every hive builds a new comb.

gone, all hives rear brood splendidly. Every hive builds a new comb.

Acq. 29th—Yesterday we had a slight rain, to-day all five in full force and honey is brought in quite plentifully from swamp Snap-dragon; all the bees that come in are painted white from the Snap-dragon as I call it, but you call it wild Touch-me-not. To-day after mit-day extracted one wash boller full.

Sept. 2nd—Extracted 243 lbs.; the combs are filled to overflowing, very much impeding the Queen's work.

The weather is very dry. This night it rains.

Sept. 3th—Extracted about 350 lbs., the weather is the same—dry and hot. Thermometer 90° in the shade.

Sept. 10th—Ext'd 225 lbs.

Sept. 10th—Ext'd 225 lbs.

Sept. 17th— " 125 " Fives hives Queenless.

Sept. 18th— " 55 " I have brought up the number from 23 to 40. They

Sept. 18th—" 55 " 1 have brought up the number from 23 to 40. They have sealed buckwheat honey, say one half; I have fed to them one barrel sugar syrap, to complete winter stores. I have extracted nearly 3000 lbs. In 1871 by the large fire, a cedar swamp burned down, and this fail the swamp was one mass of towers; The wild Touch-me-not and another I cannot name, with long cottony seed pods. The honey from the wind Touch-me-not was very thin; I set it apart in a large from kettle containing 40 gallons. That honey is now one mass like butter and by far the sweetest, I kept it for suring feeding.

large iron kettle containing 40 gallons. That honey is now one mass like butter and by far the sweetest, I kept it for spring feeding.

Instead of making the 4 feet hives I have altered my mind, and shall ase my 12 frame hive. In the spring I shall provide for each hive two drone combs containing about 10 lbs. each, I have already a quantity on hand. These will be used in a flow of honey.

You will see that this postscript is a necessary compendium to the whole and teaches us all that he who fakes care and continues to the end will be rewarded. During such a spring while we are feeding until the 15th of June, lives only half full in full swarming time, and the 4th of July not a single hive that had one pound of honey, then swarming time, and the 4th of July not a single hive that had one pound of honey, then swarming time gone, it was time and reasonable to draw a long deep sigh; yet how glorions the reward. My bees had to build two new combs per week and all my old combs have their drone combs cut out down to the worker combs; all are repaired with worker cells. In my new combs my trouble was great, they built nearly ald drone comb. Several hives however built all worker cells. I cut all the drone comb, two luches from the top bar, strait off and set them in the hives that built the worker combs; by means of this, I have now all frames with worker comb strait like a plank. Now what kind of a season have we had? was it a good one? My neighbors who stek to box hives say the season was bad; there were no swarms and bees did not work in boxes; their hives are heavy; so they are in the spring and fall every year.

Second postscript—My two straw hives were far alread in the spring, but from July to Oct, they worked by far the slowest. One weighs 61 lbs., the other 41; the hives are small. I finish by saylug, "a glorious hand shalwing, and a thank you."

JOSEPH DUFFELER, Wequicek, Wis. Nov. 3rd, 1874.

Stock browse on the Rocky Mountain bee plant, and I think it would make good fodder. I like the

pian of a uniform standard size for frames. I have six sizes of frames in my apilary and find it very incomvenient, but as 1 am a learner and experimenting, 1 can bear it for a while. My bees have done well since summer set lu, have extracted 200 fbs. and taken 40 lbs. comb, from 6 colonies and have increased from 7 weak colonies the 15th of May, to 17 now on hand. Some Halians, some Hybrids and some common. They are now laying ln some, but what they get is from 1 do not know as we have had till yesterday a very warm and dry time.

Success to GLEANINGS, which 1 highly prize, and a good time for all bee raisers.

ABERL J. POPE, Indianapolis. Ind. Sept. 24th, 1874 pian of a uniform standard size for frames.

ABNER J. POPE, Indianapolis, Ind. Sept. 24th, 1874

I wish to ask the following favor of you; which is that you try at least to have three young Queens fertilized in your hot house. I am even more positive than ever that it can be done, and that I have done it. In the tirst place see that you have no old bees in your nucleus, insert drone brood in it so that it will hatch a little before and just about the time the Queen hatches, in short, have no bees in the nucleus that have ever flown outside of the hot house. If you pay as much attention to this as you do to your other of have ever flown outside of the hot house. If you pay as much attention to this as you do to your other affairs and don't succeed, I will pay all the expense of the experiment.

A. N. DRAFER.

Upper Alton, Ill. Nov. 6th, 1874.

Bless your heart friend Draper; to be sure we shall try the experiment. One colony has attempted to build Queen cells already, but as we had no drones, we were obliged to unite them. We are going to push them along and as soon as drones are eapped over we will have some Queens. We have no fears but that they will rear Queens, but to get these Queens to lay worker eggs—that is the point. In regard to pay; all the pay we expect or want, is the 75c at the beginning of each year and we'll foot all expenses of experiments whether they are failures or successes. If the latter we shall be very glad to know that we have been useful.

I have just written to J. Carroll, Anstralia, that I would endeavor to send him a Queen with a small colony of bees next spring.
Fall pasturage has been good. Bees quit gathering only the other day, last week. Have plenty of drones and bees do not appear hostile to them even in hives having young Queens.

Fignar Benton.
Edgefield Junction, Tenn. Nov. 4th, 1874.

FRIEND NOVICE:-For the benefit of those read-FRIEND NOVICE:—For the benefit of those readers of GLEANINGS who doubt the practicability of the Bidwell method of winterling, or the veracity of Mr. B's statements, please say that he has already put his bees in hot beds for the winter. When the weather admits of it, the bees are allowed to fly abroad as in summer. We think it advisable to construct the hot beds so as to admit of ventilation without remodular the rights. ving the glass.

one point more. While glass directly in front of the bees, as in your "Glass House" may not destroy its utility, still we must think it like a pane of glass in the side of a bee hive, more or unamental than useful—more convenient than desirable. Please try a simple shallow "hot-bed" with glass over the bees only, before pronouncing this method a failure.

HEREERT A. BURCH, South Haven, Mich. Nov. 9th

We are happy to say our glass house isn't a failure by any means, and if we conveyed the idea that the glass stood perpendicularly, it was our mistake. The sash is about  $6\frac{1}{2}\times13$ , and the lower edge is about  $2\frac{1}{2}$  feet from the ground and the upper or north, perhaps 61/2; the whole room is 14x24 now, with only the amount of glass named, and yet it gets too warm on a very clear day. Instead of straw for the ground underneath, we prefer saw-dust. When the air is cold outside, the bees get against the glass but little. Our objection to a simple hot-bed is that, we can't go inside and whenever our bees are where we can't get at 'em, we are "in a peek of trouble."



### DEVOTED EXCLUSIVELY TO BEES AND HONEY

Supplement to APRIL No. 1875; and Eighth Edition Circular and Price List.

#### OUR MEDLEY.

THE BEE-REEPERS OF OUR COUNTRY.

EAR FELLOW BEE-KEEPERS:—It is now the 9th of March, and though winter still lingers, the snn has to-day thawed the lee off the walks sufficiently to allow Blue Eyes to take extensive promenades, of such a nature, that she fairly bubbled over at supper time with accounts to her papa of the wonderful things she had seen "out doors-es." The bees have rather stopped dying in the forcing house and are now starting brood very fairly, in proportiou to their diminutive numbers, left to gather meal and eare in other ways for the well being of their little ones. The rest of our Apiary seem to have wintered splendidly; GLEANings is receiving daily accessions to its circle of friends, although it has already a far larger number than at any time last year, and the world in general presents such an unwonted cheerful aspect that we really cannot, get at the matter in hand, until we tell you all how fervently we thank God for his many many blessings of which we are so little deserving. Prominent among them is the pleasaut news coming from one after another of our old friends to let us know they are rejoieing to find that we too have finally "found that peace that passeth understanding."

Do you wonder that we rejoice to find we have so many ministers among our subscribers, that we feel as if we must take them all by the hand and wish them God speed in their noble work of reforming mankind? And this reminds us that we hope we shall have the approval of all of you in deciding to mention Mr. Langstroth, first of all the Bee-Keepers of America.

Rev. L. L. Langstroth, of Oxford, Butler Co., Ohio, most of you know, is generally accorded the honor of having first made the movable comb bee hive practically a success, and of having introduced it extensively among the people. How far he has been remembered, and what are his present circumstances may be gathered from the following extracts from a letter just received from him. It was not ininquiries in regard to him that we feel sure he will excuse it.

inquiries in regard to him that we feel sure he will exense it.

Excuse dear friends, the delay in replying to your kind inquities. Since the last of June 1873, I have been iaid aside from business of all kinds, and only in a few instances have I been able personally to respond to letters addressed to me. This week for the first time, have I feit any very hopeful symptoms of restored mental netivity. A year ago last fall i was compelled by poverty and sickness to part with all my hees, and it is only within a few days that I cared to hear again the hum of an insect in which I once took such delight. Two years ago I was straining every nerve to have file suit of Otis against King brought to an issue. That eminent counsellor S. S. Fisher, after seeing all that the defense could say for their case, was confident that the claims of my patent would not be invalidated. The day was set for the hearing; but before the cross examination on my own sworn statement could be completed I was prostrated in mind and body by my old complaint, and every thing came to a stand. Since then Col. Fisher has died; and Mr. Otis, after being some time an inmate of an insane asyium, dled there, and of course the suit came to an insane asyium, dled there, and of course the suit came to an end. My relatives knew, and Mr. H. A. King was also informed by me, personality, that in aiding Mr. Otis, i had ceased to expect any pecuniary benefit by appealing to law (in case of a favorable verdict) to maintain my own rights against infringers. My settled and declared intention, was in the large territory which I then owned, to leave all infringers to act as their own consciences might dictate, in paying me a license fee or not, even although the law allowed me seven years after the expiration of the patent, to collect damages against them. I have feit for years that from the many conflicting, and as I believe, infringing hives, which have come into use, my relations to the bee-keoping community, had become misunetstood by many who were ignorant of

benefit of the latest discoveries and improvements. Just before I was taken sick, I had been planning to make yon a visit and show you what I regarded as a decided advance in the way of constructing both hives and frames. I remember with great interest onr very pleasant correspondence, and the expressions of kindness from Novice and family. I associate you with the dear wife who appreciated so deeply the interest which you and your kind physician took in my itealth. With the kindest regards to each member of your family, I remain as ever

your family, I remain as ever, Very truly your friend, L. L. Langstroth. Oxford, O. Feb. 25th, 1875.

In giving the above we have several objects in view; one is to show those who are entertaining hopes of gain by selling rights, that even so valuable an improvement as the movable comb, only resulted in trouble and loss to almost all partles concerned. And worst of all, it made unkindness, and trouble, where all should have been friends and neighbors. Lastly, it shows those who feel as if they owe a debt that has not been paid, just how they can tended for publication, yet it answers so many recompense our kind old friend for his services.

Money may be sent us, and we will give a printed receipt for it in GLEANINGS each month. If Mr. L's health permits, we shall also expect brief communications from him for Gleanings. Fellow Bec-Keepers can we not give our old benefactor a few bees to enable him to start ancw? Who will give a colouy? Those in box hives would be safest to ship and our triend would in all probability prefer to transfer them to his own hives. Come now, let us have a donation party, send in becs, Queens, capty comb etc., etc. As he will need some money to pay express charges on all those box hives you are going to send him, we will start the list with \$25.00 for that purpose. You can send money to him or to us as is convenient, but drop us a card telling us what and how much you have sent, that we may give proper credit. A fair view may be gathered of Mr. L's candor and good sense from his concluding remarks on page 38, Vol. 2.

M. Quinby, St. Johnsville, Montgomery Co., N. Y., although also, well on in years, is still, w∈ are happy to say, strong and vigorous both in mind and body. As something from the pen of a person will many times give the readers a more vivid idea of their peculiar characterthan many pages of description, we shall on account of want of space be obliged to content ourselves with simply indicating where their writings may be found in Gleanings. Mr. Q's communications may be found on pages 102, and 104, Vol. 2, and 14, and 27, Vol. 3.
All who have read Quinby's and Langstroth's

books, and we hope most of our readers have, we think will agree with us, that these works were evidently written with a true spirit of benevolence toward their fellow beings, aside from any feeling of pecuniary gain that might result thereby. Our warmest thanks are due them both for teaching us our A, B, C's in the science. Although these two pioneers struck ont alone, and each without any knowledge of the alber, we think it much to the credit of both that they agreed so nearly. The works that have since been compiled although descrying of merit for having condensed much of the matter, are yet so evidently dependent on these two, that we cannot think the writers deserving of a place by their side.

At present, we have three large honey producers in our Country who seem to deserve mention rather in advance of the rest.

J. S. HARBISON, of San Diego, California, the man who has shown himself capable of managing something like 2000 colonies, and who has produced from them in one season about 7h tons of honey, writes as follows in answer to a request for his Photo. Although his reply contains much sound sense and wisdom, we ungst think that we did not succeed in making him understand that our Medley is only a triendly grouping of those whose labors seem to give them a peculiar sympathy for each other. We are very sorry, but we suppose we shall have to content ourselves with his letter La lieu of the Photo.

Your favor came duly to hand, forwarded to my Mountain retreat. To give to the public at this early jected, the results of my successful management in face culture, would not be consistent either with my self faterest, having expended so much time and mouch in arriving at the results etc., nor justice to the several young men who are serving an apprenticeship

nnder me, and who are surely entitled to more consideration than the public who contribute nothing to develope the husiness. To train young men to my melhod is the only sure way to perpetnate the business and rescue it from the dishonor and odium that has becu brought on it in years gone by, by speculators, as well as by some who claim a place as Aplarians. This country is different from any other and I find myself yet much at a loss to understand the seasons, as each varies from the preceding. One or two years of my personal attention will do much to reduce the business to shape and establish precedents for future reference. I have no photograph suitable to send you, besides my reputation as an Apiarian needs more years to establish before being introduced to extensive public notice. Accept my thanks for your consideration and suggestions as to Gleanings as a medium to answer inquiries etc. I will avail myself of your offer at an early day.

3. S. HARBISON. of your offer at an early day. J. San Diego, California. Feb. 11th, '75. J. S. HARBISON.

Capt. J. E. Hetherington, Cherry Valley, N. Y., seems to come next. See his report on page 7, Vol. 3. Now right here comes a point that we cannot illustrate better than by making a little extract from a private letter. Will our young readers especially bear in mind that it is almost out of the question, no matter how good natured they may feel, for such men as Harbison, Hetherington or Grimm, to answer all they receive. We cannot do it, even while we make it our especial business to answer inquiries. Many times the labor of answering an inquiry in full Is as great as writing an article in full for an agricultural paper; in the former case, it is only used for one person, in the latter it may benefit thousands.

To make a report of this kind is a simple matter, while to take the consequences is quite serious. With my present notoriety I receive more letters than I can find time to answer, to say nothing of making a Hotel of ones house. When a man says the has come 360 miles to tearn just how to manage to get so much lox haney" one cannot do otherwise than treat irim just as well as he knows how. J. E. H. Dec. 31st, 1874.

Just exactly friend H., we must be neighborly, even if it involve making every subscriber on our list wait for their paper, while we are giving our attention to a single one of them. Cannot we make our Journals a more perfect medium, for making, and answering inquiries?

Adam Grimm, Jefferson, Wis., is another il-Instration that even advanced age need be no serious impediment to successful bee culture; see his reports on page 86, Vol. 1, and 127, Vol. 2. Friend Grimm has for years contributed, much, both in his writings in A. B. J., and by Importations of superlor stock of Italians.

As we have got through with the five principal characters, shall we not now arrange ourselves simply, in alphabetical order?

Miss A., ("P. G") positively declines entrusting her biography to our voluble pen, in any shape or manner, so that we shall have to content ourselves with the valuable piece of information that Miss A., is P. G., and that P. G., is Miss A.

MR. & MRS. ANTELL, of Roseville, Warren Co., Ills. Page 21, 47, 82, 142, Vol. 2; 21, Vol. 3. MARTIN H. ADAMS, FORE ALIE, N. Y.

O. L. Ballard, Malone, N. Y. George Ball, Danbury, Conn., writes Feb. 11th, 1875:

Last spring I had 6 hives, made an extractor and sold over \$100.00 worth of honey. Increased artificially and have now thirty-one on summer stands. MISS SARAH BARKER, St. Johns, Mich. A friend

of hers writes:

I recently purchased a few colonies of Italian bees for her whih money she earned glying music lessons. She has started with a year's subscription to GLEAN-

1NG3, and a copy of Langstroth's book, together with a good stock of patience and perseverence, hence I think she will succeed.

P. D. Bassford, Waterloo, Wis.

FRANK BENTON, Edgefield Junction, Tenn. P. 115, Vol. 2.

ROBERT BICKFORD, Seneca Falls, N. Y., is we believe, the original inventor of Quilts.

E. D. Billings, Elmira, N. Y.

E. C. Blakeslee, Medina, O., is the man who has the Railroad Apiary; See page 3, Vol. 1,

and 75, Vol. 2.

JAMES BOLIN, West Lodi, Seneea Co., O. P. 10, 47, 55, 65, 95, 101, 104, 105, 109, 115, Vol. 2, and 25, Vol. 3.

Dr. F. Bond, West Salisbury, Vermont.

Dr. J. P. H. Brown, Augusta, Ga. P. 24, and cover to Sept. No., Vol. 2. D. Lyons Browne, Indianapolis, Ind. P. 70,

93, Vol. 2.

HERBERT A. BURCH, South Haven, Mich., is well known as a writer in most of our Journals. P. 126, 144, Vol. 2; 14, Vol. 3.
J. Butler, Jackson, Mich. P. 9, Vol. 2.

M. H. CLEMENT, Belleville, Mich. P. 119, Vol.

2, and 10, Vol. 3.

ELI COBLE, Cornersville, Marshall Co., Tenn. Prof. A. J. Cook, Lansing, Mich., has shown himself, by his writings and at Conventions, one of our clearest thinkers, and he don't go wild on hobbies. P. 23, Vol. 3.

J. H. Cook, Paulding, Jasper Co., Miss.

Franklin Cook, Faulding, Jasper Co., Miss.
Franklin Coats, Columbus, Ind.
Mr. C's wife sends this Photo without his knowledge
wishing it as a surprise to him. She also says they
commenced fast spring with 4 colonies, and have increased them to 9, and taken 300 lbs. of clover honey
which mostly sold for 30c. She, as well as some other
bec-keeper's wives write us excellent letters and then
say we must not print them. Are we not excusable if
we are a little disobedient now and then?

J. Crane, Bridgeport, Addison Co., Vt. P. 30,

Vol. 1, and 70, Vol. 2.

C. P. Dadant, Hamilton, Hancock Co., Ills., and his father Chas. Dadant, bid fair to stand at the head of the Importing business. Some of Chas. Dadant's articles may be found on

pages 29 and 50, Vol. 2.

J. L. Davis, Delhi, Ingham Co., Mich. P. 20, 23, 31, Vol. 1, and 9, 12, 51, 62, 107, 130, Vol. 2. G. W. Dean, River Styx, Medina Co., O., like many of the rest of our friends has made himmaster of one particular Friend D's specialty is being able to make his hees build all worker combs, and build them struit. His bees in fact, obey orders in general much better than some we have seen.

92, Vol. 2. W. J. Dederick, Borodino, Onon. Co., N. Y. G. M. Doolittle & Wife, Borodino Onandaga Co., N. Y. We have many very good reasons for feeling that Mr. D. has not only been a friend, indeed, but he has proved himself also a friend ln need. P. 63, 82, 89, 95, 123, 132, 135,

Vol. 2° and 20, Vol. 3. J. Donanoe, Newboro, Ontario, Canada. i have kept bees the last 8 years, have at the present time 120 stocks, all in movable comb hives, and mostly

A. N. DRAPER, Upper Alton, Ills. P. 144, Vol. 2; 36, Vol. 3.

Andrew Dunlap, Champaign City, Ills. P. H. Elwoon, Starkville, Herkimer Co., N. Y.

P. 55, Vol. 2; 7, Vol. 3. John Elliott, Wadsworth, Medina Co., O.

B. Finch, Gallipville, Scholarie Co., N. Y. P. 47 and 71, Vol. 2,

E. Gallup, Orchard, Iowa. "Gallup's" name has become almost a housebold word among bec-keepers, and we only regret that we do not hear from him of late as often as we once did. Open almost any where in the earlier volumes of the A, B, J, and you may be sure of hearing either from or of him.

A. Grev, Reiley, Butler Co., O.
KATIE GRIMM, (now Mrs. H. Geiseler, of Green
Bay, Wis.) will have to be considered the Heroine of the Extractor for some years to come we fear, as no other young Miss, (or Mrs. either for that matter) seems equal to the task she describes on page 53, of A. B. J., for Sept., '71. Also see Gleanings page 7, Vol. 3.

Mrs. Lucinda Harrison, Peoria, Ills Val. 2. Mrs. H. deserves thanks for the lively articles she has furnished our Western papers. II. Hudson, Donglas, Mich. P. 140, Vol. 2.
 E. W. Hale, Wirt C. H., Va. P. 117, Vol. 2. Dr. Hamlin, Edgefield Junction, Tenn.

Dr. H. before his decease, was one of the most extensive Apiarists in the Sonth, and labored long and diligently in disseminating the Italians. At the time of his death, we believe

he counted his colonies by the hundred. F. H. Harkins. We have not his own Photo, but only that of his Apiary, when he was located at Home, Brown Co., Minn. See page 21, Vol. 2,

MRS. LEVI HOLLINGSWORTH, Monmouth, E. Hunter, Manchester, Mich. P. 94, Vol. 2.

DR. J. M. Jansco & Wife, Los Angeles, Cal.
In accordance with your invitation in Geranings, I send you my wife's and my own Photo, as we are both bee-keepers, although novices. We start with 100 stauds of bees, out of which one was killed while moving them over a rocky road, the rest are all very large colonies, some blacks, some hybrids, and the rest Italians. We learned the theoretical part of Apiculture and now we start in practice. The bees work on pollen now. I have been practicing medicine in town, but my health failed and I gave it up, and put up a bee ranche at the foot of the Sierra Madre Monntains, about lifteen miles from town in a fine place. We have a fine home and start an extensive overlard and vinevard in addition to our bees. We, I mean wife and self, are great bee enthusiasts; stings dou't scare us, and we are in auticipation of a lively season. At the foot of our house we have over 500 aeres white sage and much other bee feed. Dr. J. M. Jansco & Wife, Los Angeles, Cal.

We extend to you and your wife a hearty welcome, Dr. J., and shall look forward with much pleasure to receiving frequent reports from your mountain home. May we suggest to Mrs. J. that although her task may at times be laborious and fatiguing, we hope she will not be wearied in well doing. Remember that a nation of sisters are debating whether they are fitted for such duties; by their husband's, father's or brother's sides, and even one who gets discouraged and gives up may may exert a wide influence over the rest. Think of the great blessing of that robust health, that is only to be obtained by a life in the open air, among the hills flowers and trees, and remember what a great boon it will be to many, of your sex, if they once learn that they can thus be useful, and feel that their acquired skill and knowledge, places them, where they may not feel dependent on others, no matter what reverses may overtake them in life.

LEWIS KELLEY, Smyrnia, Ionia Co., Mich. P. 116, Vol. 2.

C. Kennig, Naperville, Ills.

W. M. Kellogg, Oneida, Knox Co., Ills. P.

141, Vol. 2.
D. N. Kern, Shimersville, Lehlgh Co., Pa. P. 57, 60, 70, 72, and 84, Vol. 2; 9, and 23, Vol. 3.
Friend K. seems to be the original inventor, ent, of cloth curtains for keeping the bees from the sun, and keeping off cold winds. The facility and quietness with which curtains can be moved, it seems to us places them before glass and shutters, that is if we really used to give the bees sunshine between the months of Nov. and March, a point ou which we confess to be undecided.

to be unidecided.

E. Kretchmer, Coburg, Montgomery Co., Ia. As a matter of historical record, I may state, that I have owned Italian bees longer than any person in America. Being raised only 5 miles from the residence of Dzierzon, of Carismarkt, Silesia, I had the pleasure of seeing the first Italian bees ever brought to Germany in 1853. In the same year my father obtained a Queen from Dzierzon, and on the 14th of March, 1854, I received a swarm of pure Italian bees us a birth they present. For my first Queen in America I paid \$150.00 gold, and in August 1861, (then in the U. S. Army) I sold my first colony of Italian bees for \$150.00; quite a difference from present pilces.

We have decided to give the above a place, yet it seems to us unaccountable that Italians

yet it seems to us unaccountable that Italians should have been sold at such figures the same year that the A. B. J. was started. We flud them advertised at that time on its pages at prices not so very much in advance of the present ones for full eolonies. Was it not Confederate money friend K.?

MR. & MRS. D. P. LANE, Koshkonong, Rock Co., Wis. P. 9, 51, 94, and 143, Vol. 2; 34, Vol. 3. C. T. Lane, Koshkonong, Rock Co., Wis. P. Lattner, Lattners, Dubuque Co., Iowa,

writes:

In the spring of '74 I started with 24 colonies mostly weak, had plenty of empty combs [lost 149 colonies in the spring of 1873 with the dysentery] and took with extractor 2840 lbs. of honey. Sold all but about 150 lbs. at 20 to 25c. per lb. Increased to 49 and put 48 in winter quariers, for the first time, in a dry cellar. Examined them March 3rd, all right except one Queenless, brood in nearly all stages. My bees had not one inch of comb to build. Increased artificially, after the honey season was over. Enclosed find Photo for your Medley, if you think it won't "bust" it.

If the Medley won't stand a report from such a bee-keeper as you, friend L., it ought to be-We fear our veterans are not equal to the task of 150 lbs. to the colony besides doubling the stock, even if they do have combs unlimited. Who can do better with 24 colo-

nies?

E. Liston, Virgil City, Cedar Co., Mo.

P. LIVINGSTON, New Salem, Alb. Co., N. Y. J. F. LOVE, Cornersville, Tenn.

W. S. Lunt, Fostoria, Hancock Co., O. Page 22, Vol. 3. T. G. McGAW, Monmouth, Warren Co., Ills. Pages 99, and 120, Vol. 2.

I now have 60 stocks, and 6 nuclel. I expect to winter and spring every one of these. I won't tell you now how much honcy I expect to take from them. A. McMains, Chariton, Lucas Co., Iowa. P. 60, and 96, Vol. 2. From the electful tone of friend M's letters we would not think of his being deaf, yet the intense questioning look so common in such cases is clearly seen in the Photo. He writes:

I have not heard a word since I was about 15 years old and I am now near 34, but I can talk well. It will be a great pleasure to look upon the faces of the many whose interesting articles we have been reading so

REV. J. MEADOR, Dover, N. II.

Dr. C. C. Miller, Chicago, Ills. Pages 9, 56, 57, and 140, Vol. 2, and 52, Vol. 3. N. C. Mitchell, Indianapolis, Cincinnatl, Co-

lumbia, Tenn., and finally Defiance, O., when last heard from. Friend M. teaches school for the benefit of those benighted in the science of bee culture, and also for the purpose of getting \$30.00 for one lesson occupying less than two hours. He also keeps very valuable receipts for sale telling things that can never be found in any Journal. You pay him the money (from 5 to \$50.00) and then learn that he by mistake left the precious papers at home but that they will be sent first mail etc., etc. Our readers may be astonished to learn that he does get large sums in this way, and even from neighborhoods where Gleanings eirculates at that. See pages 80, Vol. 1; 20, 32, and 128 Vol. 2; 22, Yol. 3. We earnestly pray that Mr. M. may be led to see the error of his ways, and become a useful member of our branch of industry. He is smart and talented and could easily make a handsome income by raising honey and bees honestly, instead of prowling about the country as he does.

G. C. MILLER, Mt. Hanley, Nova Scotia. Page

106, and 143, Vol. 2. J. P. Moore, Binghampton, N. Y. P. 118, 130, and 143, Vol. 2.

W. P. MOORE, M. D., Richland Station, Sumner Co., Tenn. Page 110. Vol. 2. J. E. Moore, Rochester, Beaver Co., Pa.

Theo. Moltz, West Fairview, Pa. Pages 80, 103, Vol. 2.

P. Monler, Oneida, Knox Co., Ills.

Chas. F. Muth, Cincinnati, O. Pages 10, 22, 33, 139, Vol. 2; 19, Vol. 3.

SAMUEL MUMMA, Highspire, Dauphin Co., Pa. Page 102, Vol. 2.

Memphis, Tenn., is wice He says: A. J. MURRAY, known as a writer on Apiculture.

known as a writer on Apiculture. He says:

From experience during the war, [I was a "Johnny Reb"] I found the bee-keepers Ignorant. I was raised among bees in Europe, and loved them, and as soon as I had a home of my own, I began to study them again closely, and I have given my experience and advice for the past 5 years, through the columns of the Southern Farmer, Southern Cultivator. Rural Alabamian. Our Home Journal, and Texas Farmer, besides other papers that have lived and dled some time ago. By this means I have awakened an interest in bee-keeping that was never known before, and the interest continues to increase.

JAMES MARKLE, New Salem, Alb, Co., N. Y.

JAMES MARKLE, New Salem, Alb. Co., N. Y. J. H. MARTIN, ("Scientific") Hartford, N. Y. P. 116, Vol. 2. Scientific is pretty well known as a faithful and disjuterested writer, in A. B. J. particularly.

S. D. McCLEAN, Culleoka, Maury Co., Tenn.
By your rule of judging a bec-keeper by the tons of honey he sells, you won't know where to locate me, as I have never made a report of my success, but will try and be content with the position assigned me.

J. McEliaath, Asbury, N. J.

NATIVE AUSTRALIAN.

We should like very much to be able to state positively that this individual is a bee-keeper but to confess the truth the picture was only sent us by our subscriber in Australia, (page 124, Vol. 2), and he neither said he was or was not a bee-keeper, but we give him the benefit of the former supposition. It strikes us that bee veils, with extensive "coat tails" to 'em might be in brisk demand in a country where such simplicity (?) of dress is in vogue.

J. II. Nellis, Canajoharie, Montgomery Co., N. Y. Page 32, Vol. 3.

NOVICE AND BLUE EYES.

But what has Blue Eyes to do with Bee Cul-Well, not much as yet, ture, some may ask? but as it so happened, that she first opened those blue orbs, to the light of this world, on the very day, that GLEANINGS Vol. 1, No. one, came from the printing office, she became assoeiated, and grew with GLEANINGS, in the affections of her papa. Accordingly at a very early day, she visited the bees with him, and shared his pleasures and enthuslasm. Up to this date she has, strangely, never been stung. Should it please God to permit her to talk to you all on these pages, at some future time, as does her papa now, that day will indeed be a happy one to both her parents. Mrs. N., has been deterred from taking a very active part in the duties of the Apiary, principally by the very severe, and almost alarming effect of a single sting. She is promising now however, to make an attempt to become innred to the poison, a point on which, although her faith is very faint, Novlee's, is unbounded.

H. NESBIT, Cynthiana, Ky. A valued friend who has been through the "ups and downs" of the business, but who we think is getting to be a pretty cool and steady hand of late.

MISS IDA F. NOYES, Detroit, Mich.

furnishes the following

Gurnishes the following:

Several years ago she obtained a colony of bees in a box hive. I transferred it for her. The number of colonies was increased the first season to three or four; then came a severe winter and all of them died. This of course, was discouraging to a beginner, and, to say the lenst, her opinion of bee culture was at "low tide." She then changed her location for the purpose of attending high school, and the subject of bees was dropped for a time. Happening however to read a bee item of mine, her interest was re-awakened, and, though for a long time she kept very still on the subject, she says "I very soon because so interested in Apiculture that I read anything and everything I could find relating to the subject, and at last have come to the conclusion that bee-keeping is tho very best kind of business to follow, and since it allows much leisure during the winter months, one can devote considerable attention to general literary culture."

She now has an interest in a modest little Apiary and is succeeding fluely.

Our Friend Charlie, is not a bee-keeper either, but he comes very near it, for he earries

ther, but he comes very near it, for he earries the frames, hives, extractors, honey etc., etc., to the station, and brings the tin, lumber, sugar etc., besides the paper, type and all the materlals for printing the "Bee Cultivator" as he terms it. Charlie has seen bees a few times but he has never got hurt and we consider him almost one of us.

D. D. PALMER, Eliza, Mercer Co., Ills., has written some pleasant articles entitled "Chips etc." He is familiarly known through the

Journals. He writes us March 1st.

Lost all my bees two years ago; last winter lost 60 out of 95, the 35 left I increased to 100 and got 3000 lbs. slung honey and 600 lbs. box honey, 3600 lbs. in all, bees are in cellar, no sign of disease.

Gro Parameters Windows Palacki Co. Ind. GEO. PARRATT, Winamac, Pulaski Co., Ind.

Page 9, Vol. 2.

MELVIN PARSE, Pine Bluff, Ark.

T. Pierson, Glient, Summit Co., O. Page 22

and 58, Vol. 2. Wm. PAYNE, Spencer, Medina Co., O. Page 92, and 118, Vol. 2. E. S. POPE, Indianapolis, Ind. A. J. Pope, Indianapolis, Ind. P. 144, Vol. 2.

M. L. RAUB, Bolivar, Alley Co., N. Y. MRS. M. L. RAUB, Bolivar, Alley Co., N. Y. J. T. Rose, Petersburg, Monroe Co., Mich.

MR. & MRS. M. RICHARDSON, Port Colbor Welland Co., Canada. Page 120, Vol. 2. L. C. Root, Mohawk, Herkimer Co., N. Port Colborne, Page 27, Vol. 3.

S. Rowell, Faribault, Rice Co., Minn. Page 9, and 105, Vol. 2.

MRS. S. ROWELL, Faribault, Rice Co., Minn., is the woman that is going to get an Organ with the proceeds of a single hive, (page 13, Vol. 3), and she will get it too, or we are no judge of "600-man nature."

Chas. H. Rue, Manalapan, N. J. P. 108, Vol. 2.

W. H. SEDGWICK, Granville, O.

I don't feel as though I was one of you yet, until I can say I have had 100 lbs. surplus from a five. I can close a Photo of my "preclous self?" Mrs. S. lhinks that will be the best looking man in your collection.

Mrs. S. Is quite right; we hope every woman, aye, and every man too, feels a preference for the fellow being whose happiness God has so intimately interwoven with their own.

E. A. Sheldon, Independence, Buchanan Co., Iowa. Pages 57, 96, and 131, Vol. 2.

Mrs. E. A. Sheldon, Independence, Bnehanan

Co., Iowa.

W. F. STANDEFER, Dry Grove, Hinds Co., Miss. MRS. W. F. STANDEFER AND SON, Dry Grove,

MRS. W. F. STANDEFER AND SON, Dry Grove, Hinds Co., Mississippl.

I send you Photo of my wife who helps me will bees when she is ablo (being consumptive) and my oldest child Sylvester, who attends my Queen nursery, and either sets to rights any irregularity in Aplary or reports to us; shows visitors around in my absonce, opens hives, exhibits Queens, explains the use of extractors, smokers, cages, etc. Many are as much astonished at the child, as the Aplary; he is 8 years old, began working with bees at 7 and is now running 2 colonies on his own account.

1. M. Steed, Front Royal, Warren Co., Va. Page 124, Vol. 2, and 23, Vol. 3. SPENCER STRONG, Akron, Fulton Co., Ind.

. M. C. TAYLOR, Lewiston, Maryland.

Wm. TROYER, Annawan, Henry Co., Ills.
Ilko bees. Wns the first to introduce Bcc Journals,
Frame lilves, Italian Bccs and Extractors in this township. At one time I had 110 swarms, but the winter of ship. At one time I had 110 s 1871-2 nearly cleaned me out.

MRS. ELLEN S. TUPPER, Des Moines, Iowa, has by her labors through the medium of different periodicals, and at associations and colleges made herself widely known and gained a great number of friends. Her life has been, and probably will be one full of active work, many times it seems more laborious and full of business eares than one of her sex onght to bear. Her health of late has been poor and we trust her friends en masse would be glad to see her take more rest, and enjoy her bees more in peace and quietness, undisturbed by busy traffic.

Her daughter, Miss Kate N. Tupper, a graduate of the Iowa Ag. College, is now studying Medicine. May her life be as useful and yet unclouded with the many cares that have at times devolved on her mother.

REV. J. VAN EATON, York, Livingston Co., N. Y., although a minister seems always running over with fnn as may be seen from the sketch from his pen on page 28, Vol. 3, and the following which accompanied the Photo.

On the opposite page is the last development in that line of Darwin's system of evolution. It is all I have. I use them as posters on marriage certificates. It must be at safe distance from Grimm and Gallup and all the aristocracy of the great bee-dom-perhaps you'd better slip it round on t'other side. If I only could whisper to P. G., that same picture might stand a nice chance for display. a ulce chance for display.

W. S. WARD, Fuller's Station. N. Y. GEO. T. WHEELER & WIFE, Mexico, N. Y. P. 29, 140, Vol. 2. R. WILKIN & WIFE, Oscaloosa, Iowa. Friend

W. too, has seen the "nps and downs," especially the latter, but we hope to hear he is improving of late. P. 24, 33, 82, 93, 96, 103, 106. J. Winfield, Hubbard, O. W. D. Wriottf, Knowersville, Alb. Co., N. Y. P. 50, Vol. 2.

The following names were omitted by mistake, or were sent in after the above were in type.

MISS ANNIE C. MANN, Yarmonth Centre, Ont.,

Canada.

Canada.

I began with 2 swarms and have in four seasons worked up to 28. I am strictly a "novice" at the business, and the worst is, the more experience I have the less I seem to understand it. "That bee disease" has not been in my Apiary. I winter out of doors on their search. I use the Thomas hives, double and single. Prefer the single for wintering. I bought an extractor lately, and am golug to try to use it next sunnaer. I wish I could see some one else use it first. I am so pleased that "P. G." Is a lady, I do not know of one lady in Canada who keeps bees, tho' there may be.

A. Rice, Seville, Medina Co., O.

Mr. R. has been in the business but few years, but if our veterans could make every thing succeed as he does, they ought to be happy. His Alsike Clover gives him barrels of honey and bushels of niee seed, his Long Idea hives, work to a charm, he winters without loss, and we really begin to suspect that that pleasant wife of his. (Mrs. A. A. Rice,) has something to do with it all.

GEORGE STRAY, Girard, Branch Co., Mich. Mrs. D. N. KERN. Her husband sends the

following:

My wife said she thought it was not quite fair, that she thought she did take as much interest in the "curtain arrangement Apiary" as f, and so I send both. Quite right friend K., we certainly wish to

give the ladies every possible encouragement. Another "Blue Eyes," daughter of W. H. Sedgwick, Granville, O. He writes:

(think I never opened a hive last summer that sho was not right at my side, in the way.

"Ouch!" is taken from a Chromo published by J. F. Ryder, 239 Superior St., Cleveland, O. It

tells its own story

In eonclusion dear friends, allow us to say that we are aware of having picked up these brief sketches, in a very hap-hazard way. The thought only recently occurred to us, and amid a crowd of business we have picked up whatever happened to lay conveniently. If we have omitted now and then to say a word in regard to some of our best friends, exense it on the ground that nothing lay convenient to hand. Besides a lot that we wanted to say, and had written, was clipped off for want of room.

### TABLE OF PREMIUMS.

Our reasons for deciding to offer Presents are as follows: Many names are sent us out of pure good will, saying they think it a pleasure to assist and don't want recompense. Now it is some trouble to write a letter, pay postage, get a money order etc., and we prefer to pay every one for such service; yet you know we cannot send you 5 or foe, by mail as pay. But we can send something to your little girl or boy that will cost but little, and yet may please them more than a "whole dollar." We have been for years in the Jewelry business and hope our taste and ability to select useful, pleasing and instructive presents may prove happily directed. You can count all subscriptions sent during the year, and back volumes, the same as the present one; as tor instance, if two of you send for Vols. 1, 2 and 3 each, it will make a club of 6, and

will entitle you to any of the \$1.00 articles, providing you pay 75c. for each Vol. Where no premium is wanted we send all three Vol's for \$2.00 Inclinding Lithograph. Designate by number what premium is wanted; if you leave it to us, we may send you something you have already. Only those who have made out ten names, are entitled to send them at 50c. each. Otherwise, we shall only send it for 8 months.

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#### Implements for the Apiary.

Implements for the Apiary.

In presenting this list, we would remark that we have carefully thrown out or remodeled every thing found in any way defective, and we often nothing that we do not approve of and use in Our Own Apiary.

We can ship promptly, by Freight, Express or Mail, mone mullable except those designated) goods mentioned in the following list. Hives, Extractors, etc., can be sent much cheaper by freight, but in this case they should be ordered three or four weeks before needed, if the distance is considerable. During the months of April, May and June, orders may sometimes be delayed several days, but our customers may rely upon receiving notice at once on receipt of all remittances. remittances

remittances.

At the prices given below, eash must accompany every order; as the sending of goods C. O. D. entails an additional expense, and goods many times fail to be taken, we must be excused for refusing to send any that way. When hives or frames are ordered in quantitles, the additional expense of boxlog is such that we can make no better rates on large orders. Orders for frames or hives of dimensions differing from those named, will also be liable to some additional delay, especially during the "Honey months."

\*\*PRICELIST.\*\*

\*\*As much dispersity of only one still register according

As much diversity of opinion still exists regarding hives, so far as size and shape are concerned, we shall still farnish the live different shapes of "Dollar Hives," as described in our circular for 1874, which will still be malled on application.

To those who ask our opinion, we would state that, as yet, we have no sufficient reason for preferring any thing to what we have called the Standard. Prices as follows:

as lottons.
In order to hasten the introduction of the
POPOR A ATTO A PID AND
STANDARD
Apiarlan Implements, we make the following offer.
Standard IIIve, including bottom-board, door-step,
blocks, and all the stand that we think is needed to
beautiful the man the man of the first to th
keep it from the ground\$2.00
Twenty frames for above 5%c. each
Sample Frame, by mail
Quilt40
Or all complete except painting, for
The state of the s
The same in a bundle including nails, hinges, etc, 3.25
Extractor made expressly for Standard frames,
(holds frame 13% wide, by 11% deep)\$9.00
(noids frame 13% wide, by 11% deep/
Any devlation from above, be it only 1-16 of an inch,
will be only at our regular list prices.
20
Frames of any desired dimensions, with Metal
Corners06
Council frame with coatlan of motal valibat in
Sample frame with section of metal rabbet, in-
cluding sample of transferring clasps, (by mail)15
To save the expense of shipping so great a bulk,
frames will be packed ready to be put together, unless
Traines with be parked ready to be put together, thirds
hives to contain them are to be sent made up, but the
price will be the same in either case.
process of the control of the contro

Metal Corners	put up in	packages of 100, i.e.	
		y mail 20 cts. extra)	
Per 10,000		ttlum Motel Command	

With every order for 100 frames or more, one of the above will be included without charge.

Rabbets for frames to rest on, made of folded strips of metal, per rnuning foot.....

Folding the strips adds greatly to the strength, be-sides furnishing a smooth, hard surface for the end of the frame to strike when replacing it, and preventing the bees gumming the projecting ends of the frames, as well as the supporting edge. In ordering, name length desired.

Quilts for any of the hives mentioned, (by mail 

These are made to fit our frames or any other just % of an Inch.

Wo will add that our Honey Knives are sufficiently keen and sharp to uncap honey with facility, without resorting to water, either hot or cold. The handle is of Ebony, and the whole is very strong and finely

Tea-Kettle Bec-Feeders that will feed a colony under favorable elrenmstances 25 lbs., or sufficient for winter, in ten hours.....

Extractors for any of the frames mentioned ...... 10.00

Extractors for any of the frames mentioned......10.00

These machines are all of metal, and as the hearings are all of tempered steel, they are very light and ensy running. The gearing has been recently, considerably improved, and every part is most especially arranged for rapid and ensy work, while strength and dirability have been duly considered. It may be as well to inform our feminine friends that the machine was not only much of it designed, but its construction has been constantly supervised by one of their own sex, who assists in the extracting department of our own Apiary. The entire weight of the machine is only about 16 lbs., and the entire inside work and gearing may be lifted out, leaving a stout the can with a substantial bottom, and Iron bound at the top, worth for a variety of purposes, nearly what the whole machine costs.

We can furnish a cheaper form, with flat bottom can, of cheap tin, for.....

There has been so little demand for these that we have not kept them on hand.

Gearing for Extractor, including nll castings to fasten it to the can (by mail 40c. extra)......

In ordering Extractors, castings, or Inside work, give outside dimensions of frame or frames to be used In them.

These Seales are made weather proof and when arranged to suspend a moderate sized colony, may be left out all summer; as the figures on the dial are plain and large we can see at a distance the average yield of honey per stock, each day or hour even; when weighing stocks for winter, they shorten the work very materially.

Scissors for clipping Queen's wings. These are small, the steel and very fine pointed, by mail....40 Lithograph of Aplary, Implements etc., by mail....30 Alsike Clover seed, the best, less than 10 lbs., per lb. 35 " " " " " over " "...30 Summer Rape seed, per lb., by mail, postpaid " " " by express... 15 Oneen Register Cards, ffor description and Illus-

This is a double hive made of tin, with a space beneath the walls to hold water. A lamp keeps the water at any desired temperature at an expense of about one ceut per day. Without a doubt, the machine would hatch eggs, (perhaps it would also sentten food for the chickers) we haven't yet tried it, but it hatches every thing in the "bee line" quite satisfactorily. See description in Vol. 1, page 74. In ordering give accurately length of top bar to frame.

Queen Cages, [see cover to June No.] each by mail...12 Galvanized tacks, just the thing for the Apiary,

 (by mall 2c. extra)
 10

 Thermometers (by mall 3c. extra)
 40

 Universal Feeder (by mall 3e. extra)
 30

We believe, and hope this inexpensive arrangement may prove fully adequate, for all purposes. For description, see page 102, Vol. 2.

Wax Extractor, for description see April No. of Vol. 2.
15. Honey Labels, with name and address, per 1000... 3.00
By mail 25c. per M. extra. Samples free.

These can only succeed in warm weather, say June, July, Aug, and Sept. The piece of comb containing them will be safely packed in a wooden box.

We always consider it an especial favor to have customers inform us by postal card whether goods are satisfactory; whether our mode of packing is efficient; time taken in transit; whether Express or Freight charges were reasonable, etc., etc. Respectfully, A. I. Root & Co.